

AN INTRODUCTION TO
THE HISTORY OF DENTISTRY
IN AMERICA
VOLUME II

AN INTRODUCTION
TO THE

History of Dentistry

IN AMERICA

Washington's need for medical and dental care

Houdon's life mask versus his portraits



by

BERNHARD WOLF WEINBERGER, D D S
NEW YORK CITY

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VOLUME II

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Illustrated

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TO
MY CHILDREN
SUZANNE AND BERNHARD S

PREFACE

The idea of writing this volume first suggested itself in a conversation with the late Dr Edward C Kirk who, in 1907, had presented an article entitled *Pioneer Dentistry in New York*. In April of 1926 Dr Kirk sent me old memoranda and a letter he had received in 1905 from Isaac J Greenwood, great grandson of the first prominent American-born dentist, with the request that I try to contact in New York some of John Greenwood's descendants and obtain, if possible, "Greenwood's family letters and other historic documents that are of undoubted interest and value in connection with the early history of American dentistry." It was not, however, until 1931 that I succeeded in doing this. As a result of my contact with the late Joseph Rudd Greenwood, his kindly interest and cooperation, new material, documentary in character, written by John and his son, Isaac John Greenwood, was placed at my disposal.

This subject has already occupied many, and each has brought to it his contribution of greater or less value, some in the form of short articles, others devoting chapters to this period, but none a comprehensive work. In treating this subject, however, numerous difficulties have presented themselves, not the least of which was the (almost) impossibility of obtaining any reliable information about the earliest of American dentists. As to these, the details to be had were at best very meager and the account of them extremely conflicting, therefore I was compelled to ignore all that had been written, for I soon learned that it was based not upon actual facts but hearsay evidence. For that reason it was necessary to begin at the beginning and rebuild the foundation. The material herein being based upon such documentary evidence therefore overcomes the great objection to our present historical studies.

My first efforts, from 1922-1931, were to review the newspapers of the period up to 1800, then the private papers, letters, diaries, and account books of such men as Washington, Burr, Franklin, Paul Revere, and others, and the result of these examinations fully justified the time expended. That a history of a profession can be written from such source material is the answer.

It is hoped that the book will prove of value not only to those interested in the history of American medicine and dentistry, but also

to those interested in early Americana and Washingtoniana. It should also have considerable use in the schools and libraries, medical, dental, and historical.

Although the manuscript was completed in April, 1935, because of the economic situation, its publication had to be deferred. In the meantime I realized that the first part relating to ancient dentistry was totally inadequate and needed complete revision. This now comprises the first volume, and permits the American phase to be contained in a separate volume. It will be a matter of great surprise to most readers that an entire volume devoted to the story of dentistry during the Colonial Period is required and that so much about our early dental pioneers has remained unknown during all these years.

In gathering the material for this volume I have received the kindly aid of so many individuals and institutions that it is impossible to thank them all. Examination of books, periodicals, newspapers, and documents has been made especially at the New York Academy of Medicine, Army Medical Library, New York Public Library, and The New-York Historical Society. I also desire to thank the staffs of the following: American Antiquarian Society of Worcester, Mass., American Irish Historical Society, New York, American Philosophical Society, Philadelphia, John Carter Brown Library, Providence, R. I., Colonial Williamsburg, Inc., Williamsburg, Va., Dutchess County Historical Society, Frick Art Reference Library, Harvard University, School of Dentistry, Lexington Historical Society, Library of Congress, Long Island Historical Society, Historical Society of Pennsylvania, Maryland Historical Society, Massachusetts Historical Society, The Pierpont Morgan Library, Museum of the City of New York, New York Society Library, Newport Historical Society, Peabody Institute of the City of Baltimore, Rhode Island Historical Society, Pennsylvania Historical Society Library, Trinity School, New York, Valentine Museum of Richmond, Va., Virginia Historical Society and Virginia State Library, Richmond. Other institutions that have cooperated by sending copies of important documents are: Bishopsgate Institute of London, William L. Clements Libraries of Ann Arbor and Bay City, Michigan, Guildhall Library of London, London Hospital Medical College, Museum of Fine Arts, Boston, Pennsylvania Academy of Fine Arts, Public Record Office of London and the Royal College of Surgeons of London.

I am also indebted to the late Dr. Fielding H. Garrison, John C. Fitzpatrick, Edward C. Kirk, and to Mr. Victor H. Paltsits, formerly in

charge of the manuscripts of the New York Public Library, for their invaluable help and suggestions

Again I must express my sincere gratitude to Dr Archibald Malloch and Miss Gertrude Annan of the New York Academy of Medicine. Thanks are also extended to Dr Maxwell A. Heckler for his aid in reviewing the original manuscript and for the time he spent going over this material in great detail. Without the invaluable help of my secretary, Miss Mary Haines, these volumes could not have been so thoroughly prepared.

BERNHARD WOLF WEINBERGER

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VOLUME II

HISTORY OF DENTISTRY IN AMERICA

CHAPTER I

THE FIRST ONE HUNDRED YEARS OF DENTISTRY IN AMERICA THE BARBER-SURGEON (1620-1734)

THE early history of dentistry in this country is difficult to trace, for the dentist usually led a quiet, unassuming life, not being called upon, as were the members of sister professions, to take an active part in public affairs. Outside of newspaper advertisements, broadsides and occasionally an article in the "family" or medical literature of the period, we seldom find their names mentioned. There were many dentists of ability, however, who during a long life served their community efficiently but failed to leave a record of their labor.

In this first period it seems that the only records we have are those of the barber-surgeons who were more closely allied to the medical than to the dental profession. It was essential therefore for the men trained in medicine to treat diseased conditions of the teeth and gums, clean, fill and extract teeth, and occasionally they even attempted to replace with some sort of artificial substitute those which had ceased to be useful. They were professedly dentists, collectively they were known as members of the medical profession.

At that time and later, in isolated communities, communities so small that they were unable to support a dentist, there was usually some individual, such as a blacksmith or even a schoolmaster, or druggist with more courage or ability than his neighbors, who endeavored to relieve sufferers of an aching tooth or to suggest treatment for the ills to which the teeth are subject. This does not, however, make them dentists.

The first advent of dentistry in America appears to have been at Boston, in the year 1630.¹ The Plymouth Company, incorporated in

England in 1606 by royal patent to Popham and Gorges, and reorganized under the name of *Council for New England* in 1622, was an association organized for the purpose of colonizing that section of America. The people who composed this company were known as *Separatists*.

In 1630 the company (colony), by the agency of the Earl of Warwick and Sir Ferdinando Gorges, obtained from the Council for New England its second patent. "Preparations having been made in the early part of that year, a fleet of fourteen sail, with men, women and children, numbering fifteen hundred, arrived in Massachusetts Bay on the sixth of July." The company took care to send along three barber-surgeons.² Among these was Robert Morley, who was engaged to serve the colony for three years. With him also appears to have come Lambert Wilson, a surgeon, who was sent for the same period of time. He was instructed not only to cure the sick members of the colony, but in addition, such Indians as needed him. The third was an unnamed apothecary.

The following is a copy of an agreement the *Plymouth Company* made with Robert Morley, which is self-explanatory.³

"Agreed with Robert Morley, servant to Dr Andrew Matthews, late barber surgeon, to serve the company in New England for three years, the first to have twenty nobles [one noble is a 6 s 8 d], the second year thirty, and the third year twenty marks [a mark is 13 s 4 d], to serve as a barber and surgeon on all occasions belonging to his calling to any of this company that are planters, or their servants, and for his chest and all in it, whereof he hath given an inventory, if on the sight of it, it be approved five pounds is to be allowed and paid to him for it, the same to be forthwith paid."

Another account said

"In 1630 the *Plymouth Company* sent from London to Boston a company of physicians, an apothecary, and three barber-surgeons. Outside of the barbers there were medically educated gentlemen who confined their practice to treating diseased conditions of the teeth and gums, correcting irregularities, cleaning and filling teeth, extracting and replacing with artificial substitutes."

The coming of these barber-surgeons was one of those epoch-making events in history which are at once the fruit of the past, and the seed of the future.

A great many volumes of records have been examined, beginning with 1620, when the Pilgrims first landed, but no reference to dental practice prior to 1630 can be found. Of the three barber-surgeons sent to Boston, the name of one only, William Dmly, is known. His name appears as the three hundred and fortieth in the list of church members in 1635, among the freemen on April 17, 1637, and in 1638 it seems he leased from a John Hood of Cambridge, some land located in Halsted County, Essex.

Dinly seems to have been unfortunate because of his religious belief as he embraced Wheelwright and Ann Hutchinson's peculiar religious notions. For this he was disfranchised and denounced as a heretic.⁴

"As a preacher of heresy he enjoyed singular advantages, he was more than ordinary laborious to draw men to those sinful errors that were formerly so frequent, and now newly overthrown by the blessing of the Lord, upon the endeavor of his faithful servants with the sword of truth, he having a fit opportunity, by reason of his trade, so soon as any were set down in his chair he would commonly be cutting off their hair and the truth together, notwithstanding some report better of the man, the example is for the living, the dead is judged by the Lord alone."

During a violent storm in the winter of 1638, a Roxbury man, suffering from toothache, sent for him to come and draw the tooth. He started on his mission of mercy, accompanied by a maid who brought the message, but both man and maid lost their way in the storm and were found some days after, frozen and dead. His misfortunes have preserved his name to posterity. Madame Dinly shortly after gave birth to a son who was named, with homely pathos, Fathergone Dinly.

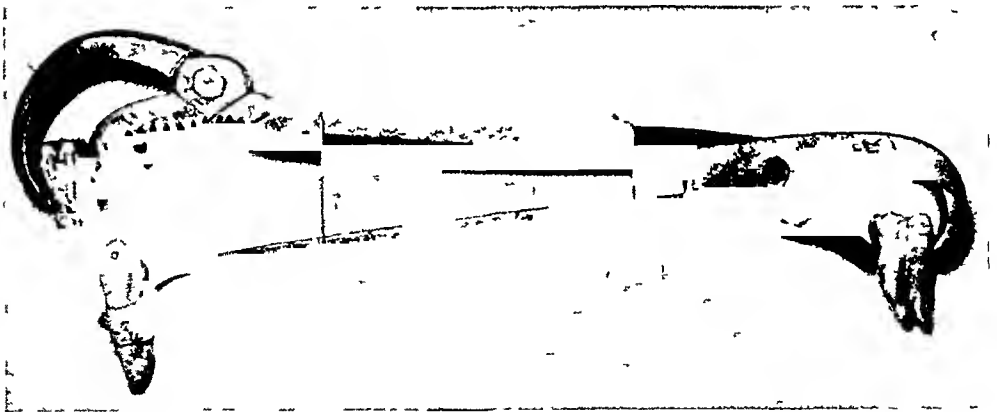


Fig 1 —A combination extracting forceps, lever or ueberwurf and elevator. A drawing of a similar forceps, part of the surgical case of the surgeon on the *Mayflower* 1620, since lost, appeared in the *Dental Cosmos* for 1891, p. 501. (Author's collection.)

Before 1650, there were seven barber-surgeons in Massachusetts, so one author claims, while another says there were only three, up to 1692.⁵ In 1700, the population of Boston was about 7,000 but even a community of that size apparently failed to provide a fertile ground for the medical profession. Giles Firmin, son of Giles Firmin of Sudbury, England, matriculated in the *University of Cambridge* in December, 1629, and later came to New England and practiced as a physician until 1644, when he returned to England. He knew "how to extract teeth, bleed, blister and sweat in a truly professional manner", yet he com-

plained that he found physic but a “*meene helpe*” in the new land. Many a poor salivated patient sacrificed his teeth to his doctor’s mercurial doses. One such toothless sufferer, a carpenter, having little ready money, offered to pay in hay-stakes, which he made of green timber, so that after they were used for a few days in the hot sun the teeth all fell out—just as his did. Thus he had revenge on the doctor. Another treatment that could scarcely have been popular with the patient was that mentioned by John Josselyn in his *New England’s Rarities Discovered*,⁶ published in 1672 in London. “Picking the gums with the bill of an osprey is good for the toothache, and scarifying the gums with a thorn from the back of a dog-fish will cure the toothache.”

A *Treatise on Choice Spagyricall Preparations*, recommended “Oil of cloves, origanum, Purging Pills, and Rosin of Jalap, are good for the toothache.”⁵

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CHAPTER II

THE ETHICS OF EARLY ADVERTISING

BEFORE considering the subject of American dentistry, it might be of interest to digress and present a picture of conditions in Washington's time. Our great cities of the Atlantic Seaboard were then, comparatively speaking, but villages. New England was the great center of wealth, industry and population. In the Colonial period the mails were transported by post-riders twice a week between Boston and New York, and New York and Philadelphia. With the modern airplane, we now travel as far in a few minutes as did our ancestors in days. There were no railroads, telegraphy, electric lights, automobiles or radios, and the newspapers for the most part were weekly publications.

The time required to make the trip from New York to Mount Vernon can best be judged from the schedule of Charles Thomson, Secretary of the Continental Congress, when he conveyed to Washington the tidings of the great honor conferred upon him by his election to the presidency of the United States¹

"Secretary Thomson left N. Y. Tuesday morning, April 7, 1789, and on the following Thursday evening he was in Philadelphia. Friday morning he continued his journey. He reached Baltimore Sunday evening. Monday, April 13, he left Baltimore and arrived at Mt. Vernon at half past 12 o'clock Tuesday afternoon."

The journey thus took a week whereas now it can be made by train in about five hours.

The *Atlas*, a New York paper, as late as Sept. 7, 1833, referred to the subject in an editorial paragraph:

"Travelling—passengers who leave Phila. in the morning now arrive in this city in the afternoon, making the trip in between eight and nine hours. In 1775 a stage which made the journey in two days was spoken of as an astonishing affair."

Lacking as they did the several means of rapid intercommunication which are in these modern times a necessity, and which are to us mere commonplace features of life, newspaper advertising had not *per se* become vulgarized in the same sense that it has under modern conditions, and in the study of these old newspaper advertisements one may easily

distinguish by the internal evidence of the advertisement itself the self-respecting legitimate practitioner from the charlatan. Not only was it customary and considered among our predecessors of earlier days good professional form to advertise, but to give testimonials as well. As an example, the eminent Edward Jenner, (1749-1823) discoverer of vaccination, did not hesitate, in 1803, to give to Dubois de Chémant, (1753-1824) a laudatory testimonial concerning the merits of his "patented mineral-paste teeth"

We have been inclined to look back upon the advertising methods, of these, our professional forefathers, with a certain degree of patronizing superiority, but in that we do them an injustice, and do we not also discredit our historical judgment at the same time? While quackery and the professional mountebank flourished then, as now, advertising by means of circulars and in the public press had not at that time been put under the ban of professional disapproval, indeed, in the earlier period of our national growth a reasonable and dignified use of printer's ink would seem to have had a certain justification growing out of the social conditions of the times and the sparsely settled state of the country

In judging the professional status of these pioneers we are in justice compelled to estimate their character in the light of the times in which they lived and in relation to the circumstances surrounding them. It would be as manifestly unjust to measure their acts by our modern ethical standards, as it would be for us to condemn our first parents upon an indictment of immodesty because their ideas as to wearing apparel differed materially from our twentieth century standards of propriety. To those who interest themselves in the study of our professional history it is a constant gratification that these men did advertise, for that custom furnished us one of the most available as well as important sources of information pertaining to their professional work.

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CHAPTER III

DENTISTS AND DENTISTRY IN AMERICA DURING THE COLONIAL PERIOD (1734-1800)

"All history becomes subjective, in other words,
there is properly no History, only Biography"

(Ralph Waldo Emerson, "On History")

1 The Physician as a Dentist

In tracing significant aspects of the practice of dentistry in the American Colonies, it is important to realize first the medical practice of the same period. It is against this background that the practice of dentistry must be projected.

The colonial doctor labored under the handicap of being relatively isolated from the scientific world of his day, but what he lost thereby he gained in courage and resourcefulness. The vigor derived from the pioneer environment of Colonial America was an excellent basis for future advance, and with the birth of the Republic, medicine in America set out on its great adventure.

For the first one hundred years or more, much of the medical care in the colonies was supplied by the clergy. They were, almost without exception, highly educated. Many of them, before coming to America, had studied medicine on the other side, and they continued to act in the capacity of doctors down to the beginning of the last century.¹ The doctor of the seventeenth century was either a physician, chirurgion or barber-chirurgion (later contracted into surgeon), the designation of doctor did not come into use in America until about 1769.²

It is important to note that like the early colonial practitioners of dentistry, medical men then did not confine themselves entirely to their profession, but with it often combined some form of manual labor, or were part owners of a general store,³ that usually carried an assortment of medicines, one such being that of William Beaumont (1785-1853) at Plattsburg, New York. It is estimated, according to Thomas J. Harris,⁴

that at the opening of the Revolutionary War, there were but 3,500 medical men in the colonies, not more than 400 of whom were graduates of medical schools

In medicine, the methods of Galen rather than those of Hippocrates prevailed, and there was more art than science. Theory ruled the day, and worse than all, there were but few pioneers to doubt first and then to investigate. They gave conclusions, not facts. Consequently there were many corrupted streams of medical doctrine. John Shradley remarks⁵

"Physicians as a body talked learnedly but confusedly of Stahl, Hoffmann, Boerhaave, and Cullen. They prated about nature, rational soul, inert practice, plethora, and depraved humors, but bled invariably and without grudging. Vivesection was the fashion of the day, its omission was a sin."

At that time there were no laboratories for chemical and physiological inquiry and no accessible collections of anatomical specimens. Therapy, rather than etiology, was the aim of all teaching. The first medical diploma (an honorary title), awarded by a university in this country, was given by Yale to Dr. Daniel Turner of London, in 1723⁶ while the first medical school, the University of Pennsylvania, was not founded until 1765.

In medicine and in law, the preceptor system for training physicians and lawyers continued far into the nineteenth century, even after the medical colleges and law schools were well established. To obtain a medical education, it was not necessary to attend a medical college, providing one was able to find a practicing physician willing to take one in as an apprentice. All that was required was to "read medicine", reading in those days was much like a hospital internship of the present day, for it gave one clinical experience and contact with actual practice. Up to 1820, the medical training had advanced only in method and had not changed much since the days of William Harvey (1578-1657) and the English Civil War. It was necessary to study only anatomy, surgery and materia medica, chemistry, physiology and microscopy had no place in the medical student's career. In the late eighteenth and early nineteenth centuries, American medical practice was deeply under the influence of the European school of drastic therapeutics. Blood-letting, poulticing and the most powerful purges and emetics—calomel, ipecac, quinine and senna—these constituted the armamentarium of the medical practitioner of the day.⁷ In the first hundred years or more in the Colonies, there were few laws, if any, governing the practice of medicine, for it was not until 1760 that the first medical examining board was organized. The New York law was enacted because untrained practitioners were flourishing. The preamble to the bill said⁸

"Whereas, many ignorant and unskillful persons, in Physic and Surgery, in order to gain subsistence, do take upon themselves to administer Physic and practice Surgery in the City of New York, to the endangering of the lives and limbs of their patients, and many poor and ignorant persons, who have been persuaded to become their patients, have been great sufferers, thereby "

Undoubtedly there was abundant opportunity for quacks to apply their trade before this law was enacted, to the misfortune and detriment of those whom they attended

Dr William Douglass, (1692-1752) who settled in 1718 in Boston, says in his *Settlements in North America*⁹ regarding the practice of medicine in the colonies "In our plantations a practitioner bold, rash, impudent, a liar, basely born and uneducated has much the advantages of an honest, modest gentleman In general, the physical practice in our Colonies is so perniciously bad that excepting in surgery and some acute cases it is better to let nature take her course than to trust to the honesty and sagacity of the practitioner Our American practitioners are so rash and officious that the saying of the Apocrypha may with propriety be applied to him 'he that sinneth before his Maker let him fall into the hands of the physician' When I first arrived in New England, I asked a noted and facetious practitioner what was their general method of treatment He told me it was uniformly bleeding, blistering, purging, anodynes, etc If the illness continued, there was *repetendi* and finally *murderandi*" We have often admired the courage of our ancestors, but in the light of this we scarcely have given them credit enough for the way they bore their suffering

That the public sometimes rebelled against this method of severe treatment, is clearly demonstrated by the following excerpts taken from the lawyer's charge to the Jury in the case of Benjamin Rush, (1745-1813) and found in *The Rush-Light*, No 3, March 15, 1800 It was reported by a Lieut John Rush, and entitled *Rush & His Supporters*

"And, if no speech, and no writing is to be made use of, which can be fairly construed to mean that a physician (Benjamin Rush) has killed his patient by his remedies, then I say, that all controversy about modes of cure must from henceforth cease, for, it is absolutely impossible to speak with disapprobation of a physician's practice, without making use of such words, as will, directly or indirectly, imply, that he has killed his patients with his remedies Doctor Brickell, for instance, in remonstrating against the treatment of General Washington by Doctors Craik and Dick, has these words "Thus, we see, by their own statement, that they drew from a man in the sixty-ninth year of his age, the enormous quantity of eighty-two ounces, or above two quarts and an half of blood in about thirteen hours Very few of the most robust young men in the world could survive such a loss of blood, but the body of an aged person, must be so exhausted, and all his powers so weakened by it as to make his death speedy and inevitable Here the effect followed

the cause precisely, the physicians soon observed the powers of life yielding, a loss of speech, and that he expired with out a struggle! The excessive bleeding had left him no strength to struggle!"

"Now, Gentlemen, follow the rule laid down by the law, take all Doctor Brickell's words together, and you will, at once, perceive, that he charges these physicians with killing General Washington with their remedies. He tells them, that the blood they took from their patient rendered his death inevitable, he says that their bleeding was the cause of his death, and that the excessive bleeding left him no strength to struggle with—But, are these not truths? And shall this, or any other man, be prevented from speaking and publishing these salutary truths? Shall he be harrassed and prosecuted, shall he be muzzled, gagged, or fined to his ruin, because he has had publick spirit enough to promulgate truths so necessary to the preservation of even the lives of the people,"

In the light of this condition, what could one expect of those who followed the calling of a "dentist"? Up to about 1766 the doctors and churgecons practised what dentistry there was. Their work consisted mainly in the treatmeat of toothache and extraction. With the gradual arrival of European *dentists*, *surgeon-dentists* and *operators for the teeth*, equipped with the latest ideas then prevalent in Europe, more attention began to be paid and greater care given to the teeth by these new arrivals. Apparently the way of entry into this country for these men was through the West Indies, especially through the Island of Jamaica. It is there that a more thorough study of dental history should be made. We are inclined to believe that it would give us more knowledge and a better approach to the understanding of this period.

Because of the quackery which even then was prevalent, except for the few genuine dentists, they were not as a rule looked upon with great favor. Therefore, the physician was entrusted to do most of the dental work. What success the regular physician had, can be gathered from the following entries in various account books.

Under date of October 25th, 1724, Judge Samuel Sewall, in his interleaved almanac, wrote¹⁰ "Towards night sent for Dr. Boylston, he came and pulled out a stump of Tooth for Wife. She being still all night full of pain, I went to Boston & the Dr. came and pulled out the next Tooth." This was Zabdiel Boylston, the celebrated doctor who introduced inoculation against smallpox into America and who, visiting England the following year, was made a Fellow of the Royal Society.

Many of these physicians included in their advertisements such statements as "proficient in pulling out teeth and putting in artificial ones," one of these being a Dr. Tomb,¹¹ who stated that he was educated in the *University of Edinburgh*, and had "practiced Physicks, Surgery and Midwifery in Ireland," but gave no qualification for dentistry. Such men we shall not include in this survey.

Wyndham B. Blanton, in his *Medicine in Virginia in the Eighteenth Century* records the following interesting entries by physicians¹² "Dr. Millan, a practicing physician at Falmouth, Virginia, was recommended by William Allason to his sister-in-law, Susannah Hooe, in 1772

"I think the sooner you could come it might add the more to your own ease, by getting Doctor M. Millan, a skillful hand at drawing teeth, to relieve you from that great pain, which you have long laboured under, by taking from you those that are defective."

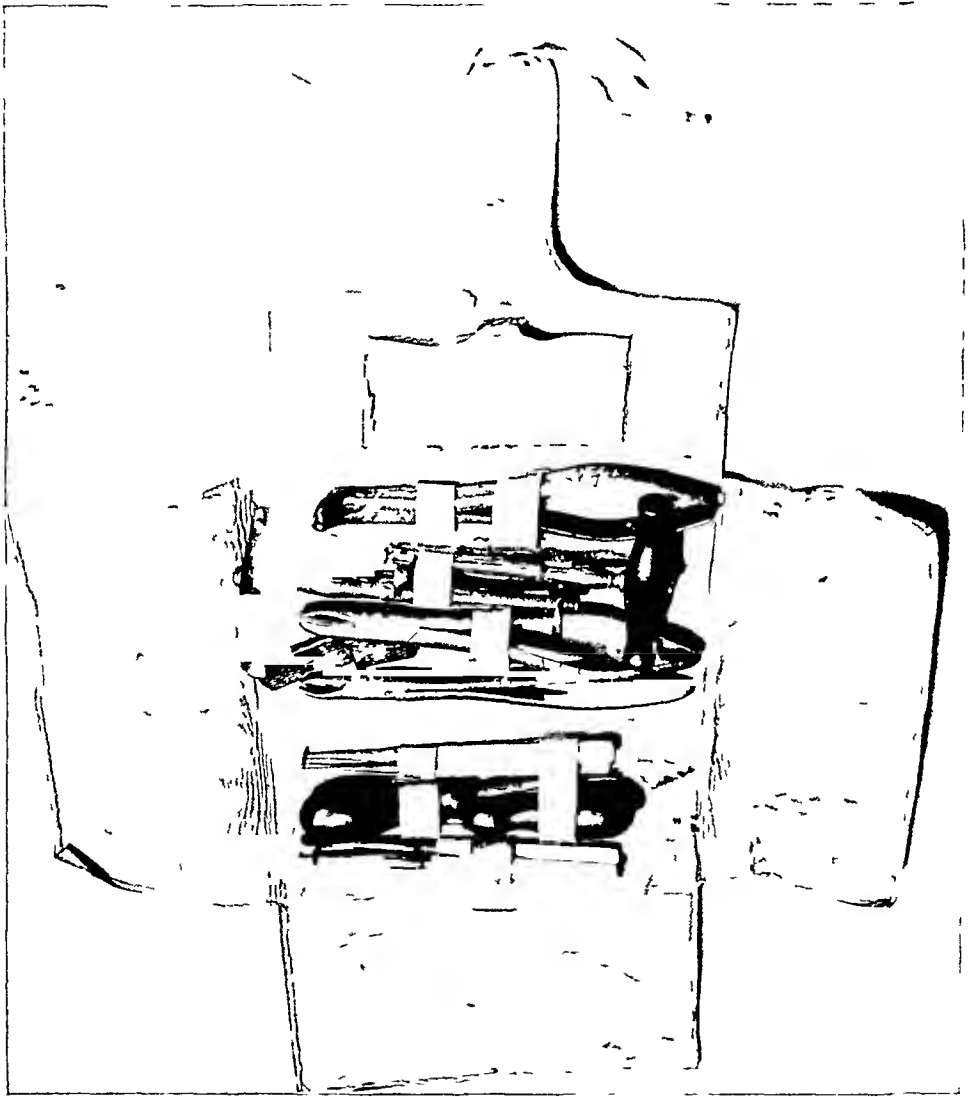


Fig 2—Type of traveling dental kit used by the Colonial itinerant medical and dental practitioner Late eighteenth century (Courtesy of the Army Medical Museum, Washington)

The fee book of Dr Robert Walker of Petersburg, Va, contains frequent mention of tooth-pulling and a "tooth-drawer" was a common article in the doctors' inventories of this period¹²

"Jan 23, 1787	Had the toothache violently
"Feb 3,	My face swelled with sore tooth and gum boil
"Mar 9, 1791	Heard that Chris Porter died yesterday—his death was caused by drawing a tooth which turned to a mortification
"Jan 1, 1794	I had the toothache last night violently in one of my fore teeth
"Aug 27, 1797	Walked to C Taylor's—he drew a tooth for me, it was the farthest in my jaw and some bone came with the tooth
"Aug 1, 1798	I went to C Taylor's, got him to draw the roots of two of my jaw teeth, one of them hard to extract
"May 10, 1799	I went to C Taylor's—he drew the only remains of four of my upper fore teeth, which makes my mouth very sore "

The entry of March 9, 1791, relating to a death as a result of drawing a tooth, forcibly brings to our attention the extreme danger of this procedure as it was then practiced. It is little wonder, with the unhygienic surroundings, instruments and methods employed, that fatality resulted. Among the "Diseases and Casualties this week" as found in a *Bill of Mortality* of London, for the week of August 15 to 22, 1665, there are recorded 5,568 deaths, of which 4,237 were from the plague. Fever took 348, spotted fever another 1,661, consumption 126, and the next highest cause given was for the teeth, 111¹³

Among the *Papers of Cadwallader Colden* (1688-1776) in the *New York Historical Society*, there are many interesting observations recorded that relate to the condition of the teeth as found in the early inhabitants of this country. "As to the reason of the children of the people from Europe (not the native Indians) losing their teeth so commonly, I attribute it entirely to the Scurvy of which scarce one family in this country is free" (v 4 p 261)

Again "He is of a pale complexion, has bad teeth and often troubled with the toothach but as this is endemeal to the country so that not one in hundred of those born have good teeth or are free from toothach. None besides this boy so far as I have known accompanied with such offensive breath" (Oct 5, 1757) V 5 p 204

Every physician found it essential to carry in his saddle bag a special case containing a variety of extracting forceps. One type is shown in Fig 2 and another in Fig 3. The latter case is one that belonged to Dr Francis Percival who practiced for more than twenty years, at the

time of the Revolutionary War in Somers, Conn. The most popular instrument in use at that time was the *turn-key* generally called the "*Garengot key*," though first described by Etienne Bourdet in 1757¹⁴ (See also Fig 138, V I) and by the English and Germans called the "*French key*" and in France the "*English key*"

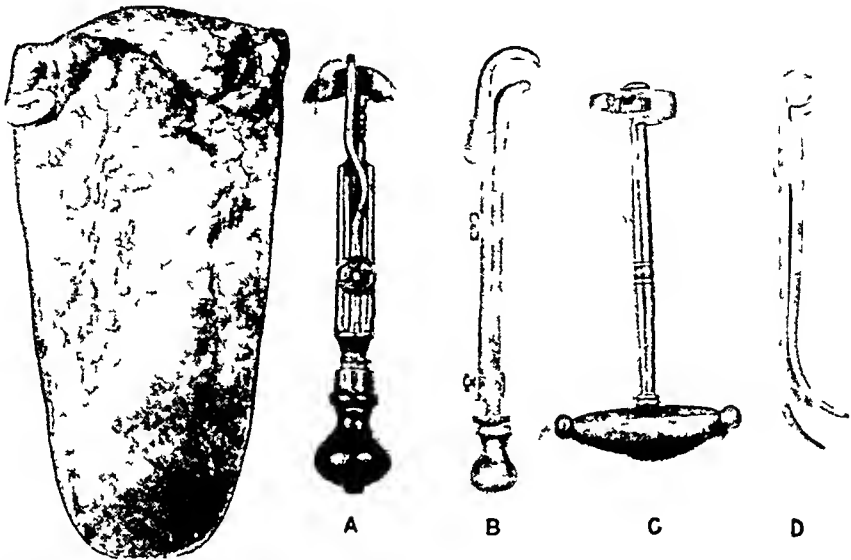


Fig 3—Extracting instrument case carried by physicians during the Colonial period
A Pelican B Lever C Turn key D Forceps (Courtesy of the School of Dental
 and Oral Surgery, Columbia University)

Philip Fithian, suffering with what was probably an impacted wisdom tooth, related how he sought out a physician but received little relief¹⁵ "I rode after breakfast to Dr Thompson with the settled purpose of having my troublesome tooth drawn out but on examination he found it to be too far back and too short to be extracted—more sorry I!"

The exigencies of the times developed resourcefulness among laymen. William Byrd's account of pulling his own tooth shows the ingenuity of at least one Virginia gentleman¹⁶

"I had an impertinent Tooth in my upper Jaw, that had been loose for some time, and made me chew with great Caution. Particularly I cou'd not grind a Biscuit but with much deliberation and presence of mind. Tooth-Drawers we had none amongst us, nor any of the Instruments they make use of. However, Invention supply'd this want very happily, and I contriv'd to get rid of this troublesome Companion by cutting a Caper. I caused a Twine to be fasten'd round the Root of my tooth, about a Fathom in Length, and then t'y'd the other End to the Snag of a Log that lay upon the Ground, in such a

Manner that I could just stand upright Having adjusted my String in this Manner, I bent my knees enough to enable me to spring vigorously off the Ground, as perpendicularly as I cou'd The force of the Leap drew out the Tooth with so much ease that I felt nothing of it, nor should have believ'd it was come away, unless I had seen it dangling at the End of the String This new way of Tooth-drawing being so silently and deliberately perform'd, both surprised and delighted all that were present "

According to Samuel Mordecai, in Richmond in the late eighteenth century "one Tooth-drawer, who probably never heard the word dentist, did all the work and all the mischief in the dental line"¹⁷ He goes on to describe this unique person

"Peter Hawkins was a tall, raw-boned, very black negro, who rode a raw-boned, black horse, for his practice was too extensive to be managed on foot, and he carried all his instruments, consisting of two or three pullikins, in his pocket His dexterity was such, that he has been known to be stopped in the street by one of his distressed brethren (for he was of the church), and to relieve him of the offending tooth, gratuitously, without dismounting from his horse His strength of wrist was such, that he would almost infallibly extract, or break a tooth, whether the right or wrong one I speak from sad experience, for he extracted two for me, a sound and an aching one, with one wrench of his instrument

"On Sundays he mounted the pulpit instead of black bare-bones, and as a preacher he drew the fangs of Satan with his spiritual pullikins

"Peter's surgical, but not his clerical mantle, fell on his son, who depletes the veins and pockets of his patients, and when he has exhausted the latter, the former are resorted to "

2 Colonial Dental Practitioner

We must begin this part of our history with a succession of names of individuals, for so far little of this period has heretofore been uncovered or recorded When Dexter,¹⁸ in 1876, compiled his history of American dentistry, he remarked

"Prior to the war of 1775-83 there was, as far as can now be ascertained, only one dentist, practicing specially as such, in this country, and he remained here only a short time This gentleman was Mr Robert Woofendale, whose temporary sojourn here has been already noticed in the introduction as fully as is now possible

"In the year 1776, and for five years thereafter, we have no authentic account of any dentist in this country, so that the date 1876, although representing the one hundredth year of existence of the nation, cannot be said to be, strictly, the centennial of American dentistry

"Most accounts have given, as the first dentists in America after 1776, Mr Joseph Lemaire and one Whitlock, or Whitlock, but it appears from Watson's 'Annals of Philadelphia' (vol 1, p 179) that,

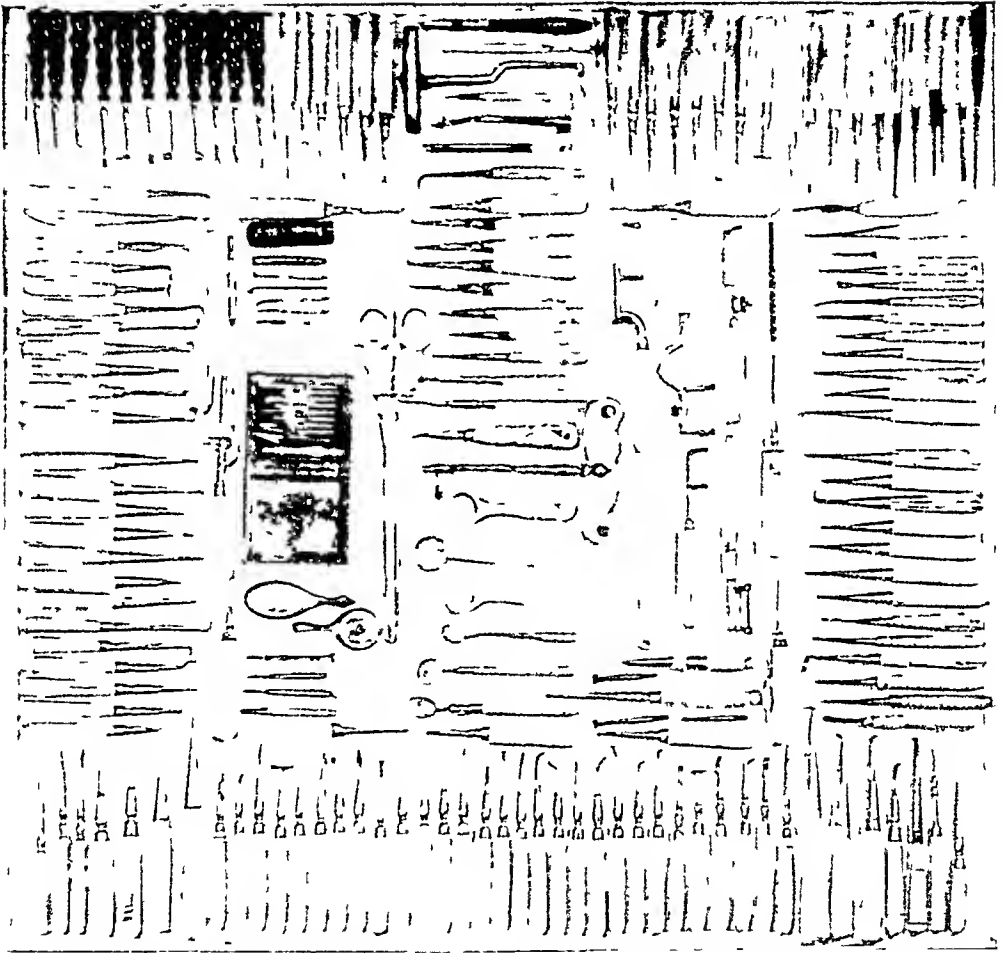


Fig 4 —Collection of dental operating instruments with Mother of Pearl, ivory and bone handles, as described in Vol I (Author's collection)

on Mr Lemaire's first appearance in that city, in 1784, he found there a dentist (whether native or foreign is not stated) by the name of Baker, 'the first person ever known as a dentist in Philadelphia' This is also all that is known today of this person When he first practiced in Philadelphia cannot be ascertained "

That brief statement represents about all the knowledge we have "of the ten operators upon the teeth prior to 1792" ¹⁹ Until 1934 our dental literature continued to repeat these same statements, and little was added to what Dexter in 1876 had published In 1934 in New York there was held the centennial of the establishment of the first dental society, The Society of Surgeon-Dentists of the City and State of New York, and for that occasion a brief account of our research in dental history was printed ²⁰ That material was selected from that which we gathered for this chapter

The list which is presented below does not include, by any means, all the men who were here, but they are the names of many found in going through newspaper files and other records We are convinced that there were many more men who practiced in this country during the period, but it seems hardly possible that the better known have escaped our attention Of some, nothing except their names is known and in all probability little will ever be discovered, while others stand out in bold relief

DATE OF PRACTICE	NAME	LOCATION	TITLE
1733	Reading, James	New York	"Tooth-Drawer"
1734-1735	Mills, James	New York	"Tooth-Drawer"
1738	Whitebread, William	Philadelphia	Operator for the Teeth
1755	Baker, William	Virginia	Surgeon-Dentist
1761 ⁹	Baker, John (M D)	Boston	Surgeon-Dentist
1766	Wooffendale, Robert	New York	
	Daniels, James	New York	Wig Maker and Operator for the Teeth
1768	Revere, Paul	Boston	Business of a Dentist
	Poree, Michael	Philadelphia	Surgeon-Dentist
	Hamilton [Thomas J ?]	Boston	Surgeon-Dentist
	"Philodontalkikos"	Virginia	"Great Dentist"
1769	Hemet, Jacob	New York	Operator for the Teeth
	MeBeth	Philadelphia	
1771	Bartlett, Robert	Salem, Mass	
	Scott, Daniel	Salem, Mass	Dentist
1772	Hornby	Virginia	Surgeon-Dentist
1773	McGinnis, John	Baltimore	Surgeon-Dentist
	Gilbert, John H	Baltimore	Physician
1774	Labeaume, Joseph de	South Carolina	Surgeon-Dentist
	Speneer	Boston	Dentist
	Louis	Salem, Mass	Dentist
1775	Dubuke	Boston	Dentist and Oculist
1776	Butte, L & Co	Philadelphia	Surgeon-Dentist
	Fisher, Leonard	New York	Surgeon, Barber and Dentist
	Fendall, Benjamin	Baltimore	Operator Upon the Teeth
	Dusturge, Richard		
	Durfoot (Dastuge)	New York	Surgeon-Dentist
1777	Battemp	Baltimore	Surgeon-Dentist
1778	Greenwood, Isaee, Sr	Boston	Dentist
	Gardette, James (M D)	Newport	Surgeon-Dentist
1779	McKinzey, James	New York	Dentist

DATE OF PRACTICE	NAME	LOCATION	TITLE
1780	Hunter, D	New York	
	Lee	Philadelphia	
	Brown	Boston	Surgeon and Dentist
	Templeman, John	Newport	Surgeon-Dentist
1782	Le Mayeur, Jean		
	Pierre (M D)	New York	Dentist
1783	Greenwood, Isaac, Jr	Salem, Mass	Dentist
	Clabeau	Philadelphia	Surgeon-Dentist
	Flagg, Joseph, Jr	Boston	Surgeon-Dentist
1784	Browne, J	New York	Surgeon-Dentist
	Clumbeig, Philip	Philadelphia	Tooth-Drawer and Barber
	Spence, Andrew	Philadelphia	Dentist
1785	Greenwood, John	New York	Surgeon-Dentist
	Salse, John	New York	
1786	Ruspini, Bartholomew, Jr	New York	Surgeon-Dentist
1787	Brenon	New York	
	Jermon	Baltimore	Dentist
1789	Greenwood, Clark	New York	Dentist
	Skinner, Richard	Philadelphia	Surgeon-Dentist
	Cortland		
1790	Greenwood, William Pitt	Salem, Mass	Dentist and Operator for the Teeth
	Morril, James	Baltimore	Physician and Surgeon
1791	Bassett, Isaac	Baltimore	Dentist
	Molan, James	Philadelphia	Surgeon-Dentist and Bleeder
	Perry, Louis	Philadelphia	Surgeon-Dentist
1792	Raymond, F	Baltimore	Dentiste and Oculiste
1793	Liber	Philadelphia	Chirurgien Dentiste
	Whitlock or Whitelock, C E	Annapolis	Dentist
	Gilliams, Lewis	Philadelphia	Dentist
1794	Le Breton	Philadelphia	Surgeon-Dentist
1795	Similier, George	Philadelphia	Surgeon-Dentist
	Lazarus, Philip (Larus)	Philadelphia	Dentist
1796	Bessieres	Charleston, S C	Dentist
	Flagg, Samuel H	Charleston, S C	Dentist
	Tessie	Charleston, S C	Surgeon-Dentist
	Bezier	Baltimore	Dentist
	Bruff, Thomas	Baltimore	Dentist
1797	Child	New York	Surgeon-Dentist
	Wesler, Godfrey	Philadelphia	Surgeon-Dentist and Bleeder
	Wooffendale, John	New York	Dentist
	Chauvet	Philadelphia	Surgeon-Dentist
1798	Duxiver	Philadelphia	Surgeon
1799	Dubuisson	Philadelphia	Dentist

The following may have practiced earlier, our record, however, shows as follows

1800	Florence	Virginia
	Baker, Edward	Philadelphia
	Hailer	Philadelphia
	Hayden, Horace	Baltimore
1802	Hudson, Edward	Philadelphia
	Longbothom	Baltimore
	Parson, T	Boston
1804	Porter, J B	Hartford
1805	Bradley, William	Hartford
1806	Parkhurst, J and William	
	Tellier, John L	New York
1808	Sanders	Baltimore
	Comyn, I J	Philadelphia
	Fay	Baltimore
		New York

During this period most of the newspapers carried advertisements of itinerant dentists especially, advising the public that only brief stays would be possible by these men "as they were being urgently called elsewhere" How these "floaters" were looked upon by the better class of dental practitioner, can be judged from the following warning found at a later date in Benjamin James' *Treatise on the Management of the Teeth*, published in Boston in 1814

"The great impositions, which have been practiced by some, who call themselves dentists, render it necessary, that every one, who values his teeth, should be able to distinguish the impostor from him, who understands his business

"Most people may be deceived at the time of an operation, though woeful experience in a few months unfolds the deception The impostor is sought for to make reparation, or to receive merited punishment, but the bird has flown, he is gone to practise his tricks and deceptions among those, who know not his character, until prudence drives him into another seclusion from revenge, into another 'shoal of gudgeons'

"In all occupations, it is safer to employ those only, whose permanent residence enables us, at all times, to call them to account for negligence or deception The itinerant dentist ought, therefore, never to be trusted"

Dentistry languished in this country until about 1760 when Dr John Baker arrived from Europe by way of Jamaica The only known practitioners prior to that date were William Baker, an unknown surgeon dentist, and the tooth-drawers, James Mills, James Reading and William Whitebread The *New York Weekly Journal* beginning with Jan 6, 1735, contains a much quoted news announcement that was continued every now and then up to November 10, 1735 Much confusion exists as to the Jan 6, 1735 date, owing to the change in the calendar Though the issue bears the date of Jan 6, 1734, and the serial number LXI, the previous issue, number LX was printed on Dec 30, 1734, therefore the announcement (Fig 5) did not actually appear until the year 1735

*** Teeth drawn, and old broken Stumps taken out very safely and with much Ease by James Mills, who was instructed in that Art by the late James Reading deceased, so fam'd for drawing of Teeth, he is to be spoke with at his Shop in the House of the Deceased, near the old Silp Market,**

Fig 5 —First newspaper announcement in America of a tooth drawer James Mills
New York Weekly Journal, January 6, 1735

From it we learn that James Reading, "so famed for drawing of teeth" must have been one of the first to follow this specialized branch

of dentistry in this country. Upon his death his brother-in-law, James Mills, a wig-maker, continued the art he learned from Reading. The latter's wife Helene, was a sister of James Mills, both being children of Alexander Mills a peruke-maker of New York.²¹

To be Sold, by William Whitebread,
 OPERATOR for the TEETH,
 Now living in Arch Street, opposite the Theatre

THE most effectual Cure for the Scurvey
 in the Gums, which not only Cures the Scurvey in
 the Gums, but makes the Teeth as white as ever, and Causes
 the Gums to grow up to the Teeth again, by only taking
 a Tea Spoonful in the Morning, and rub your Teeth well,
 then wash your Mouth with fair Water
 Price One Shilling the Bottle

Fig. 6 — William Whitebread, in the *American Weekly Mercury*, Philadelphia, June 29, 1738—December 9, 1742, July 11, 1745

It was in the Philadelphia *American Weekly Mercury* for June 29, 1738 that William Whitebread's first announcement appears. As seen in Figure 6, Whitebread designates himself as an *Operator for the Teeth*. This would indicate he had formerly lived in England. In it he offers a mouth wash that is "the most effectual Cure for the Scurvey in the Gums, etc."

Those who practiced the extraction of teeth in England were a specialized group, known during the fifteenth and sixteenth centuries as *tooth-drawers*, then during the next century as *kindhart*. Sometime during the seventeenth century they began to call themselves *Operators for the Teeth*. One finds these Operators defined in the dictionaries of that period as "one skilled in drawing teeth." Being specialists they had no general interest in dentistry, a few, however, did carve teeth and make dentures of ivory or bone.

The English *Operator* for that reason must not be confused with the French *Opérateur pour les dents*, who were the dental practitioners of the period. Likewise they were not the professional mountebanks who presented themselves as tooth-pullers, where the extraction of an aching tooth was incidentally an incentive for the sale of some tooth preparation or some fake cure.

Reading, Mills and Whitebread, our first so-called dentists in the Colonies, cannot for that reason be considered as being any more than *tooth-drawers*, and we must wait until John Baker's arrival to record the earliest dental practitioner.

Whitebread's advertisement appeared in the above-mentioned newspaper throughout the years 1741 and 1742, and as late as 1745. In the July 15, 1742 number we find he moved to the "Sign of the King's Arms in Second Street over against the Parsonage House, where good Attendance is kept for Man and Horse." The later advertisements fail to state that he was an *Operator for the Teeth* which makes us believe that his primary interest was in the sale of his cure-all mouth wash.

From Washington's account book we learn of a William Baker, a *Surgeon-Dentist*, who treated the first president on Nov. 26, 1755, making a charge of £14 9 0 for some dental service. This amount Washington paid as a hat bill, a method he used of squaring Baker's bill against him. (See Chapter XVI.)

In the *Pennsylvania Journal and Weekly Advertiser* of May 20, 1762, there appeared a paid notice by "Nurse Tucker" which is typical of the type of dentifrice advertisement of that day.

"Likewise, a Tooth-Powder for Whitening the Teeth and preserving them from the Scurvy, and Pomatums. Any person, by applying to the said Nurse Tucker, the first Time they have the Toothache, shall be perfectly cured."

It will be noticed that the announcement of Mills, and the one next to be considered, differ materially in the service offered to the public. Mills merely claimed proficiency in extraction of teeth, whereas the others now announce their capacity as a *dentist*, *surgeon-dentist* or *operator for the teeth*, both in its operative and prosthetic field.

The gentlemen of leisure of the olden time would have his morning shave, the brushing up and fresh powdering of his wig, and his teeth polished, at the same time and in the same shop. Of this we have evidence from an advertisement in the *New York Mercury* for July 21, 1766, which reads "James Daniel, wig-maker and Hair Dresser," also "Operator for the Teeth, a Business so absolutely necessary in this City." The more progressive of these public valets advanced still farther along dental lines when circumstances encouraged them to do so, especially as beautifiers of the person and purveyors to personal comfort, adding tooth-drawing and replacing of lost teeth. All this was, however, outside of their legitimate calling, and only acceptable to the community when nothing better was obtainable.

Though Daniel states he "has practiced these operations [see Fig. 7] in London, under Marsh, the Surgeon Dentist, [sic] a Man so eminent in this Profession" he is honest when he continues "and hopes by this useful Branch of Business, to get more in the Public's Esteem, which is all his Ambition."

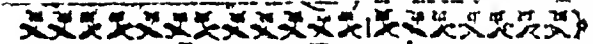


James Daniel,
Wig-Maker and Hair-Dresser,
HAS removed to Wall Street, In the House of Miss Cummings,
 next Door to Messrs Walter and Samuel Franklin, makes
 all kinds of Wigs, and dresses Ladies and Gentlemen's Hair in the
 genteelst Manner, and at the lowest Rates. Also
Operator for the Teeth,
 A Business so absolutely necessary in this City, prevent the
 Decay in the Gums, which of en times occasion the Loss of the
 making them white without Prejudice to the Teeth, and loosening
 them that are loose, &c. As said Daniel has practised these Op-
 erations in London, under Marsh, the Surgeon Danish, a Man so
 eminent in this Profession, hopes to meet with Encouragement from
 the Ladies, and Gentlemen, and others of this City, and makes
 no Doubt, such as please to make Trial will find full Satisfaction.
 He returns his most sincere Thanks to the Public, for the many
 Favours confer'd him since his Arrival in this City, and hopes by
 this useful Branch of Business, to get more in the Public's Likeness,
 which is all his Ambition.


Fig 7 —James Daniel *Operator for the Teeth*. *New York Mercury*, July 21-November 13, 1766

One can see from this advertisement that at that time the *Operator for the Teeth* was but a mere adjunct to a business proposition. Daniel continued to advertise through the remainder of the year 1766 (*New York Weekly Journal*, Nov 13, 1766).

3 John Baker, M D and Robert Wooffendale

There has always been an uncertainty as to who actually was the first qualified dentist to practice in this country, John Baker, or Robert Wooffendale. We know the exact time of the latter's arrival from England, which was on Oct 30, 1766, and soon after his arrival his first advertisement appeared in the *New York Weekly Journal* of Nov 13, 1766, and was repeated in the *New York Mercury* for Nov 17.

John Baker's first notice, announcing his intended departure in twenty days from Boston, did not appear in print until Jan 22, 1767 in the *Boston Evening Post* and *Massachusetts Gazette* and *Boston News Letter*, followed by a new series beginning on April 23 that he would "depart" in ten days. (See Fig 29)

Upon Baker's arrival in New York April 28, he mentions the fact that "he has given sufficient proof of his superior judgment in this art", also to upward of two thousand persons in the town of Boston. Thus it is certain that Baker was in Boston some time prior to this

announcement, and therefore did arrive in America and began his practice at an earlier date than Wooffendale. This will be considered in Chapter IV when relating John Baker's activities in this country.

John Baker,

Surgeon Dentist,

BEGS Leave to take this Method of informing the Public, That he shall leave this Place in Twenty Days at farthest—That those who are disposed to apply to him may not be disappointed.

He also begs leave to express his Gratitude for the Favours he has received while in *Boston*, and hopes that those who doubted of the Safety of his Art, from its Novelty in this Country, are now convinced of its Safety and Usefulness.

Until he leaves this Town he continues at Mr *Jessia Brackett's* in School Street, where he will be ready to contribute to the utmost of his Power to serve the Publick in his Profession.

His Dentifrice, with proper Directions for preserving the Teeth & Gums, will be to be had at Mrs *Eustis's*, near the Town House, after he has left the Town. N B Each Pot is sealed with his Coat of Arms in the Margin of the Directions, to prevent Fraud.

Fig 8—John Baker, *MD Surgeon Dentist*. Informing the public of Boston that he intended to leave for New York. *Boston Evening Post*, January 22 and February 2. *Massachusetts Gazette and Boston News Letter*, January 29 and 30, 1767.

Robert Woffendale (as he first spelled his name) continued in practice in New York until March 25, 1768, when he returned to England, there he remained until July 1793, returning again to New York to resume his activities.

Robert Woffendale,

SURGEON DENTIST, lately arrived from London, (who was instructed by Thomas Berdmore, Esq. Operator for the Teeth to his present Britannick Majesty) begs Leave to inform the Public, that he performs all Operations upon the Teeth, Gums, Sockets, and Palate. Likewise fixes artificial Teeth so as to escape Discomfort, and without Pain, or the least inconvenience.

N B May be spoke with at his Lodgings, at Mr John La-boyteaux, at the Golden Pall, betwixt the Fish Market and the New Dutch Church, from the Hours of nine in the Morning to six in the Evening.

45

Fig 9—Robert Woffendale's first announcement. *New York Journal or General Advertiser*, November 13 and 27, 1766, February 12, 1767.

Upon Baker's departure from Boston in April of 1768, Paul Revere called attention to the fact that he would continue the work of his predecessor and pieceman

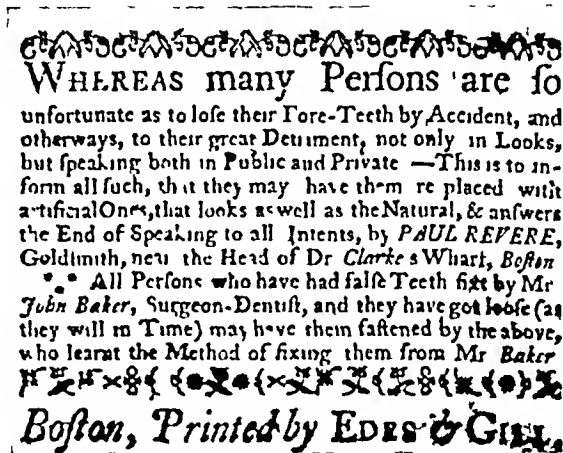


Fig 10 —First announcement of Paul Revere that he would continue the services of John Baker Boston News Letter, August 23, Boston Gazette & Country Journal, August 25 and 29, 1768

Of the men who stand out as definite personalities, a more detailed history will be presented, which will be found in subsequent chapters. Their names are merely included at this time so that they might appear in chronological order.

From this point on, we are able to present somewhat of a more complete story of the progress in dentistry in America.

The first to be considered is Michael Poree, who apparently began his practice in this country in Philadelphia. In the August 25, 1768 issue of the *Pennsylvania Gazette* we find his first announcement as an *Operator for the Teeth*, from Paris. He then resided at Jacob Barrad's Taylor "in Chestnut Street between Second and Third." Later he was at "Mr. Francis Murphy's in Spruce Street." In the *New York Journal and General Advertiser* for Dec. 8, 1768, we find him advertising in New York, where he continued to remain until the summer of 1771. For six months he returned to his Philadelphia practice, arriving in New York in January of 1772. In August of 1773 he was in Boston, and from June 1774 to 1781 in Philadelphia, with an occasional visit to Baltimore and other places. Porce's first New York notice on Dec. 8, 1768, is reproduced in Fig. 11.

MICHAEL POREE, SURGEON DENTIST,

IN order to remedy the various Complaints, incidental to the Teeth and Gums, takes this Method to inform the Gentry and Public in general, that he makes and fits natural Teeth and artificial ones from a single Tooth to a whole Set, to appear as well, and be as easy and usefull as real Teeth. Likewise cleans Teeth and draws Stumps in the easiest and best Manner. He sells a PREPARATION for cleansing and preserving the Teeth and Gums, likewise cures the Scurvy. He has a Potion which is excellent for curing all Disorders in the Mouth, eradicating every Degree of the Scurvy in the Gums, preserving the Teeth from decaying, and rendering them beautiful, white and sound.

ADVICE to the PUBLIC

The Number of Patients now under Doctor Poree's Care, in Philadelphia, prevents his visiting the different Parts of North America, so some Time, he has given to meet the general Medicine for the Benefit of those whose Business or Circumstances will not allow them to go to the Doctor. In particular, an Apozem that is infallible in all Degrees of Intermittent, to the Febrile, Quag, Quotidian Fevers, a Potion for removing all Obstructions of the Vessels and Worms, which by purging the Blood restores the whole Mass to sound and entire. Likewise a Water that has never failed in every Disorder of the Eyes, where manual Operation is not required. The above Medicines are to be had of the Merchant Poree, at Mrs. Mary Cornwall's, behind the Old City Hall with full Directions for using them.

N.B. All those afflicted with Consumptive Distemper, Scrophulous or cancerous Disorders, Stone, Gravel, Rheumatism, various Sorts of the Gout, such as Palsy, Trismus, Scissora, Constrictions, &c. &c. may (under God) be delivered by applying to the Doctor himself at Mr. Francis Murphy's in Spruce Street, Philadelphia.

Fig. 11—Michael Poree's announcement that he makes and fits natural and artificial teeth. *New York Journal and General Advertiser*, December 8, 1768, *New York Gazette*, December 12, 1768

This was again repeated in the *New York Gazette* of Dec 12. He then resided at Mrs. Cornwall's, behind the Old City Hall, where he practiced until the fall of 1769. Attention has been called to James' warning of the itinerant dentist of those days, but it seems that Poree was among the first to issue a warning in this country against the "many erroneous operators for the teeth, who believe, and frankly confess the operation to be dangerous, yet dare to undertake it." "The exorbitant prices thereof will sufficiently evince to the public that all such operators are, in a word, worse than pick-pockets or thieves."

In the advertisement (*New York Gazette*, Dec 11, 1769), he endeavors to present a lay lecture on the importance of the teeth and their care, advising especially "to keep them as clean as a young child's," meaning undoubtedly an infant's, for otherwise decay of the teeth will result. The remaining portion is one of self adoration and praise. Apparently Poree must have realized this, for his other announcements are shorter and more dignified (Fig. 12).

Three Pounds Reward

T E E T H.

TH**E****R****E** are many erroneous operators for the teeth, who believe, and frankly confess the operation to be dangerous, yet dare to undertake it, particularly to fasten the teeth that are loose, to fill up the decayed ones, and prevent them from acting any more, and to polish the same, and make them equal to the sound ones in strength, service, and sight. But the daily, and just exclamations of those ladies and gentlemen that have had the misfortune to suffer the most excruciating pains under such operators, and the exorbitant prices thereof, will sufficiently evince to the public, that all such operators are, in a word worse than pick pockets or thieves: for a person had much better loose a little money, or an handkerchief, than their teeth at any time, because the former will not do, and supply the many unspeakable uses and services of the latter; for many of those operators have, by their operations, spoiled the whole set of teeth. Teeth are not of that small importance that many imagine, the right eye or the right hand, is not of greater importance nor of more value to many than their teeth. The loss of the teeth may be, and are grievously lamented by those that have lost any, particularly for the following uses they were of, and for which uses they were intended by the maker of them, namely, to produce the essence of food to the palate, to receive and to remit at sundry times the air which is the pendulum of life, by which we move, which must work regularly, otherwise we are disordered, and sickness ensues, which is often the case when there is a gap in the teeth, because the air goes in and comes out too fast, which disorders the stomach. The loss of teeth also are by none more mis'd than by orators, and all public speakers and singers, for without the teeth we cannot speak articulately. The teeth likewise greatly beautify the lower part of the face, so keeping the cheeks and lips in their proper position, and oft times ladies in particular, are afraid and ashamed to speak and laugh in public, for fear of shewing their defects in their teeth, and speech. These truths none will gain say. Since then from what is above mentioned, it is evident, that it is absolutely necessary for us to have the number of teeth which was given to us, which generally consists of 32, and to keep them as clean as a young child's, otherwise they disorder the stomach by the filth and scales contracted, and often causes a stinking breath, and the tooth ache, and the same will, in that case, soon decay and be of none effect. Touching the whole of this operation, to prove that I do not want to impose on the public, I will not directly recommend myself, but refer those that are so wondrous of an operator, to those that have honour'd me not only by employing me, but with their thanks and praises for the great benefit they receive from my operations, and the many honourable mouths I have had the honour to put in order, in supplying all defects touching the teeth, make a sufficient number to make me known to any lady or gentleman here, that stand in need of an operator, without particularly pointing out any of them; and therefore shall only add my due thanks to those ladies and gentlemen that have thus honoured me, and my name, and place of abode.

MICHAEL POREE,

In Broadstreet, near the Exchange.

Fig 12 —One of the earliest informative discussions of the dental art of this period
Michael Poree *New York Gazette*, December 11, 1769

Porec announces his return to Philadelphia on June 3, 1771, in the following manner

"Michael Poiree, Surgeon Dentist, Just arrived from New-York, Takes this method of informing the gentry and public in general, that he makes and fits artificial teeth, from a single one to a whole set, to appear as well and be as easy and useful as real teeth. He likewise cleans teeth, removes all deformity in them, and draws stumps in the easiest and best manner. He sells a composition for cleaning and preserving the teeth and gums, likewise, a lotion, which is a specific in all disorders of the mouth, eradicating every degree of the scurvy, preserving the teeth from decaying, and rendering them beautiful, white and sound. He doubts not of giving satisfaction to all who chose to apply to him in Spruce street, between Second and Third streets, where they will find a sign with his name over the door, on which is delineated his profession in the plainest terms

NB The great encouragement he has met with in New-York, determines him to fix himself in America, and proposes in future to divide the year between that city and Philadelphia, if he meets with the same approbation" (*Penna Chronicle*, no 229, p 75, June 3, 1771, *Penna Gazette* (Phila), no 2215, June 6, 1771)

Apparently he met with success, for he remained in Philadelphia until the end of the year. On Oct 8, 1772, (*New York Weekly Journal*), he states he is once more in New York, "opposite the Bowling-Green", and "has an infalible Remedy for the Tooth-Ache" "Likewise makes Artificial Teeth at several Prices, viz one Pound, seventeen Shillings, and twelve Shillings per Tooth" One is led to assume that the differences in these prices were for either natural or various types of animal teeth

According to both the *Boston Evening Post*, August 8, and the *Massachusetts Spy*, August 5, 1773, Poiree visited Boston "The said operator has practiced for five years in New York, with great Success and is now come to Boston by the Intercession of some worthy Gentlemen of this city. His stay will be short here but he intends to return once a Year if he meets with Encouragement" No further record has been located as to other Boston visits, so it is doubtful that he received the encouragement he desired

Poiree returned to New York, where he continued to practice until June of the following year, when, according to the *Pennsylvania Journal*, June 8 and *Pennsylvania Gazette*, June 15, 1774 we again find him in Philadelphia "Said Operator has practiced six years in the city of New York with great success, and hopes to give equal satisfaction here" There he must have found success, for our last record of him is dated July 8, 1781, (*Pennsylvania Gazette*), thus covering a period of some thirteen years

Sometime during the year 1768 there arrived, this time from London, a Mr Hamilton, who strangely professed to be both a "Surgeon Dentist and Operator for the Teeth" For some unknown reason, none of his

THE MOST VIOLENT TOOTH ACH,

Cured in a few Minutes without Drawing,
(No CURE No PAY)

BY a TINCTURE which gives immediate ease in the Tooth Ach, and cures all disorders whatever in the mouth or gums, and in a few days using will fasten the teeth if ever so loose, and with a little continuance will perfectly cure the scurvy in the gums. It likewise preserves the teeth from rotting, keeping such as are decayed from becoming worse, and takes off all disagreeable smells from the breath, and causes a large discharge of all scorbutical humours lodged in the gums, which destroy the teeth. By applying this tincture outwardly, it will entirely remove all kinds of swellings in the cheek or pain in the ear, and is an absolute cure for the Head-Ach if ever so violent and likewise cures the most violent rheumatic pains in any part of the body. This valuable tincture is prepared and sold in bottles at One DOLLAR each with particular directions for using it; at Mrs. BUSKIRKS, the corner of Wall-Street near the coffee-house New-York, by Mr. HAMILTON, Surgeon Dentist and Operator for the Teeth, from London, who cleans and beautifies the Teeth, and displaces all superfluous Teeth and Stumps with the greatest ease and safety, and makes and sets in artificial Teeth, from one single Tooth, to a whole Set, in so nice a manner that they cannot be distinguished from natural; therefore those Ladies and Gentlemen who have had the misfortune of losing their teeth, have now an opportunity of having natural or artificial teeth put in with dispatch and secrecy, and in such a manner as to be of real use, ornament and service for many years, without giving the least pain to the patient, which is too often the case owing to the want of judgement in the Operator.

N. B. Artificial Teeth put in at Two DOLLARS a Tooth, and the Poor afflicted with the Tooth-Ach cured gratis every Morning from Light to Ten.

Fig 13 —Typical tincture advertisement as used by Hamilton from 1768 until as late as 1792

numerous and lengthy advertisements mention his given name. In his notice of August 16, 1800, in which he mentions Horiae H. Hayden, Hamilton gives his address in East-Street, between the assembly room and North Gay Street, which corresponds to a record of a Thomas J. Hamilton whose address was the same. Up to about 1799 Hamilton continues to use the plain "Mr." before his name, thereafter he takes to himself the title of "Dr."

Hamilton's port of entry must have been Boston, for there we find him on September 12, 1768, (*Massachusetts Centinel*), recommending his famous "Tincture" for "the most violent TOOTH-ACHE Cured in a few minutes, without Drawing (No Cure-No Pay)." A like advertisement with but a change in his residence and the addition of a footnote was used repeatedly, even as late as September, 1792 (Fig. 13).

From Boston, Hamilton went to Philadelphia, where we find him in February (*Pennsylvania Chronicle* 27th) and March (*Pennsylvania Journal*, 16th, 1769). On June 22, the *New York Chronicle*, and the 29th, the *New York Weekly Journal* reported that he was in New York at "Mrs. Buskirk's the corner of Wall Street near the Coffee House." Here he stated "Artificial teeth put in at Two Dollars a Tooth, and the Poor afflicted with Tooth-Ache cured gratis, every Morning from Eight to Ten." Thus he seems to have started a free service for indigent individuals. Even at that early date the professional man endeavored to aid the unfortunate with unpaid services, a custom which has continued down to the present time. From July 13 to 27, (*Pennsylvania Gazette*), we find him again in Philadelphia, while on August 14 the *Boston Gazette* carried his regular announcement. He had then turned his attention to cure "the Scurvy in the Blood" as well as dental disorders.

While practicing dentistry Hamilton, in 1769, turned his attention to curing "the Scurvy in the Blood" as well as "coughs, colds, asthma, pains in the side and spleen, spitting of blood, ulcers of the lungs," and a long variety of other illnesses too numerous to mention, by a "balsamine tincture" of his, a typical charlatan advertisement of the day (Fig. 14).

We find no further record of him until September 13, 1792, when the *Pennsylvania Gazette* again repeats the customary tincture advertisement.

In 1799, Doctor Hamilton changes his style of advertisement to read

The Teeth Dr. Hamilton, Respectfully informs the Ladies and Gentlemen of Philadelphia and its vicinity, that he cleans and removes the tartar from the Teeth so effectually, as to restore them to their native whiteness, without the least injury to the enamel

IN ALL Manners of vessels are torbid to harbour, or carry him off

For curing the SCURVY in the Blood, &c.

AS the Scurvy and itching in the blood is a distemper more common than any other disorder, and is often attended with fatal consequences from a despair of finding relief: This is therefore to inform the public, that there has lately been discovered a balsamic tincture, the virtues of which are so great, that it eradicates all scorbutic disorders in the blood, be the case ever so bad or obstinate, as it cleanses the body of all spots, blotches, pimples or itchings in the blood. Prepared and sold by Mr. HAMILTON, at Mrs. House's, next door to the Lady as Queen, in Fourth-street, Philadelphia, in bottles, 3s. 6d. each; and, by his appointment, at Mr. JOSEPH SOLOMAN's, in King-street, near the Court house, Lancaster. It is a perfect balsam, and great pectoral, heating, drying and preserving from putrefaction; in it are all the virtues of the natural balsam, and the greatest conservative power that can be found in any medicine, it is good for curing moist ulcers, whether inward or outward, it is excellent for coughs, colds, asthma, pains in the side, and spleen, spitting of blood, ulcers of the lungs, palsies, convulsions, struma's, or king's evil, consumptions, &c. being inwardly taken, and outwardly applied; it strengthens, resists malignity and poison, is good against the plague, all sorts of pestilential and malignant fevers, as measles, small pox, spotted fevers, &c. This medicine is dedicated to the lungs, and is as a fire, to dry up their superfluous humidities, it corrects the sharpness of acid fluids, abates their acrimony, and sweetens the blood and nervous juices.

The destruction which is daily experienced by worms, especially in the bodies of children, render any medicine, which will eradicate them, of great value. The learned Dr. Boerhaave, laid the foundation of many disorders to be owing to these destructive animals, and was sensible, could any proper antihelminthic be discovered, that would destroy the semina or seed, so many people would not labour under agues, consumptions, pleuritis, distempers, head-achs, and many other disorders, of which they are the first foundation; Mr. HAMILTON has been so happy, by great application, as to find out a safe and sure vermifuge for the utter extirpation of them, both in old and young people, by purging off all slime and putrid matter in the stomach and bowels. That these devouring animals exist in the body, every stage of our lives, and constitutions of both sexes, equally contribute to prove; it cannot possibly be otherwise, for on strict examination it appears, that the very food which sustains us, contains in it a putrid matter, which is found to be the bed and nursery of them. This noble medicine is now offered by Mr. HAMILTON, for the good of mankind, and preservation of children, in packets Three Shillings and Nine-pence each, containing 6 doses for grown up people, and 24 for children, with proper directions for using it.

Fig 14 —Hamilton's Scurvy advertisement used so generally by early dental practitioners. *Pennsylvania Gazette*, July 13, 1769

His treatment of impaired teeth, with the proper application of his Electuary perfectly prevents their futur decay

The use of his Electuary, after the Teeth being properly cleaned, prevents calcerious depositions on them—Being an efficacious anti-scorbutic, it effectually dissipates and removes all scorbutic humours and inflammations in the Gums, it corrects the disagreeable smell produced from unsound Teeth by occasioning a sweet breath

Doctor Hamilton also makes and fixes Artificial Teeth, either with gold or silver pivots, or with ligatures, in such manner as to answer the conveniences and purposes of the natural, whether in fitness, colour, articulation or mastication. He likewise transplants Teeth, promotes Dentition, and performs all operations the Gums and Teeth in any state may require

The general satisfaction he has hitherto given, flatters him with the hopes of meriting the approbation of those who may honor him with their commands

The next year we find him in Baltimore, where he remained at least a year, after that we again lose sight of him. This would indicate a practice in this country of at least thirty-three years

The advertisement, (*Baltimore Telegraph*, August 16, 1800), is extremely important, as it brings into the picture Horace H. Hayden (1769-1844), who was later destined to play such an important part in the evolutionary changes in American dentistry. Incidentally it gives us our first clue as to the date of Horace Hayden's arrival in Baltimore which has erroneously been given as 1804

"THE TEETH

"DR. HAMILTON with sentiments of gratitude, acknowledges the liberal encouragement he has experienced from the ladies and gentlemen of Baltimore and its vicinity, in his professional line as a Dentist. Actuated only by a wish to excel, or at least to please in his useful art, he hopes to merit the continuance of their favors and the custom of those who may need his assistance

"Too often has it been a subject of complaint (and not without just cause) that operations on the teeth and gums have been treated by many without delicacy or tenderness, and with so much harshness, as to discourage many from seeking necessary relief in the most ornamental and useful part of the human system

"From the various and frequent applications which he has received, many of which not being able to attend to, he has employed as an assistant Mr. HAYDEN, whose experience as a Dentist, in the northern states, particularly in the capital cities and towns in the state of New-York, ensured him great success

"Dr. H. can now assure the public, that the most assiduous attention shall be paid to every application in his line, particularly operations on the teeth and gums, shall be treated with every mark of delicacy and tenderness

"Natural and artificial teeth set in the neatest manner, without the operations of extracting old stumps or giving pain, on the most reasonable terms—he also cleans and restores teeth to their native whiteness, without the use of acids, or the least injury to the enamel, restores and plumbs defective teeth, so as to prevent further decay, removes the blackness if ever so long contracted, and the tartar which generally inflames the gums and proves destructive to the 'alveolar processes,' and finally causes the teeth to become loose and drop out

"In all operations which he may perform on the teeth and gums, he engages to give satisfaction or no pay will be required—Advice given gratis on the teeth and gums

"He has for sale, powders, opiates, antiscorbutic tinctures, and proper brushes for the teeth and gums—also a cosmetic which will infallibly remove ringworms, pimples, blotches and tetter on the face, neck and arms

"A line or message addressed to him at his residence in East-street, between the assembly room and North Gray-street, will receive due attention

"The citizens of Fell's Point, from whom Dr H has received a very considerable share of attention and practice, shall be waited upon, on directing a line as above, at their own houses, at any time they may appoint"

In the *Virginia Gazette* of Thursday, February 18, 1768, appeared the following unique advertisement, probably the most glaring of all the quack announcements. The suggestion for extracting sound, healthy teeth is certainly interesting

"The subscriber, late from Constantinople, begs leave to inform the public, that for the sole benefit of his countrymen he has made himself acquainted with the celebrated method of extracting sound teeth, as practiced with universal success, by Mustapha Ben Achmet, great Dentist to the Grand Signior, on whose certificate the subscriber offers his service

"That every man has the seeds of the tooth ach in his composition, which tho' latent for a while, will in the end, certainly discover themselves, and increase to their appointed maturity, is a position no one can question. That the teeth are the nidus of these seeds, is also unquestionable. It follows from hence, that extracting the sound teeth is laying the hand to the root of this disorder, and crushing the seed in embryo. Every improvement in this art may be considered as an expedient suggested by the Divine Disposer of all Things, to guard against disaster, therefor to neglect it, if not to condemn his mercy, is surely to disregard his admonition. How dreadful a disorder the tooth ach is, how uncertain in its attacks and excruciating in its effects, can be unknown to few, which makes him expect that this method of removing the danger by precaution, will be universally embraced. Should this relentless malady invade an epicure in times of feasting, fine Lady dressed for a birth night, should its sudden attack pillage the beauty of a triumphant fair at a ball, or should it seize upon a bridegroom on his nuptial night, how terrible were the consequences! Think of this, O ye people, and

have your teeth forthwith extracted' The subscriber flatters himself that he shall infuse a very sensible pleasure into every virtuous breast, on publishing this celebrated and transcendently useful method, imparting the benefits of a happy discovery, and giving that blessing which everyone feels on being relieved from apprehension This method is worthy universal approbation, not only as it exempts us from pain, but as it will have the most beneficial influence on Society It will effectually prevent biting, grinning, snarling, and showing the teeth, which operate now too much to the injury and disturbance of public happiness And as in the present dangerous times of invasion, our liberties and rights are likely to suffer vital injury from the silence of those who ought to proclaim them to the world, it is hoped that when by this method, they are prevented from keeping their tongues within their teeth, the public oratory will break forth to preserve our liberties and maintain our rights

"The subscriber already participates in the joy that will fill every parent's heart when he informs the public, that he has brought with him a large quantity of pills and draughts prepared by the hand of the Great Mustapha Ben Achmet himself, which, taken either by the mother during pregnancy, or by the nurse, or by the infant, will suffocate the teeth in embryo, and thus prevent all those direful concomitants of teething, which often tear the sweet offspring from that bosom which had doted on its charms

"The subscriber assures the public, that he draws not teeth in common method, but without the least imaginable pain or inconvenience, and is confident that every parent will experience such benefits in his family from submitting his children to this operation as forever after to applaud himself for pursuing the remonstrances of duty, uninfluenc'd by the persuasions of affection He will trouble the public no longer than to inform them, that he will attend every day at the Sandedrinhouse solely for their good, to draw teeth at 5 S a tooth

From the publics most humble servant,
Philodontalkikos
Sive Semocritus minor
Sive Empiticus secundus "

Of Jacob Hemet [1727-1790], our next practitioner, we learn that he followed his father, Peter Hemet "Operator for the Teeth" for George I and George II in London, in the same occupation, under the Lord Chamberlain He continued in the same capacity to Her Majesty and the Princess Amelia, and advertises his *Pearl Dentifrice*, 1768, in the *London Chronicle* In 1769 we find him in New York, and on January 3, 1770, (*Pennsylvania Journal*), in Philadelphia During the years 1772 and 1773 he practiced in Boston as stated in the *Boston Gazette*, July 19, 1772, *Massachusetts Spy*, January 7, 1773, and *Boston Evening Post*, April 3, 1773

It is impossible to state just how long Hemet remained in this country for he returned to England where he died on August 22, 1790, age 63

Another "Surgeon Dentist from London" was Mr (later Dr) Hornby. Before reaching this country, he, like Baker, first practiced in "Great Britain, Ireland, Holland, Germany, and the West-India Islands." Though in his advertisements he claims to have been in "most Towns on this continent" (see Fig 16) our first record is his visit to Williamsburg on August 20, 1772 (*Virginia Gazette*). He apparently was in Norfolk prior to this notice as he "returns thanks to the public, and to the gentry of Norfolk in particular, for the favors he received." His card (Fig 15) is typical of those of his day.

WILLIAMSBURG, *August 20, 1772*
MR. HORNBY, Surgeon Dentist, from
London, returns Thanks to the Publick, and to the Gentry of
Norfolk in particular, for the Favours he received during his short Stay
 there. He performs all Operations on the Teeth and Gums, extracts
 decayed Teeth and Stumps, scales and cleans Teeth, and entirely eradica-
 tes the Scurvy, he transplants artificial Teeth, so neat as not to be
 discovered, and to perform all their Functions. The general Approbation
 he has met with, from all Ranks of People, in most large Towns on the
 Continent, will sufficiently recommend him ——— He also cures all
 SANABLE DISEASES, — A CERTAIN DISORDER cured, with
 the greatest Despatch and Secrecy — SCALING and CLEANING
 at fifteen Shillings each Person — ADVICE and MEDICINE, to
 the POOR, *gratis*
A B His Stay here will be but short

Fig 15 —Mr Hornby in Williamsburg, *Virginia Gazette*, August 20, 1772

His practice seems to have been confined for the most part to Virginia and South Carolina, Beaufort District, where apparently he was the first to practice dentistry in that state. From there he traveled to Baltimore, and his advertisement in the *Maryland Journal & Baltimore Advertiser* (August 1, 1786) is most interesting, for he gives "advice and assistance to the poor without a fee," and even goes a step further. "All those," he says "who have been under the Doctor may have any further assistance gratis."

How far back the giving of free consultations by dentists goes, one thus sees, and why the general public continues to expect such services from our profession.

Our last record is his appearance in New York in December, 1786 (*Daily Advertiser*, December 15). His scale of prices seems to have advanced, for in Virginia he charged for "scaling and cleaning" but fifteen shillings each person. Now the amount is five dollars. Also he has graduated (Fig 16) from a plain "Mr" to "Dr."

Dr. HORNBY

PERFORMS all Operations on the Teeth and Gums, extracts decayed Teeth and Stumps; scales and cleans Teeth, and entirely eradicates the SCURVY, that malignant complaint which makes the gums grow spongy, soft, and tumefy, filled with Phlegm which gradually become so many Ulcers, the teeth become black will corrode, and at length fall out together with the Alveoli becoming carious, and will exfoliate. The breath of such People must be highly offensive to themselves, and every one about them, and if not assisted, the Virus must from thence be transported to every part of the body, since the Aliment in mastication and deglutition must partake of the ulcerating matter, it is demonstratively plain, that the nutrition becomes poisoned, therefore that almost every Individual must stand in need of this Operation, is too obvious to mention.

SCALING and cleaning each person five dollars.

TRANSPLANTS natural, makes and fixes artificial teeth, so neat as not to be discovered, and to perform all their functions, at six

dollars each.

THE antiscorbutic beautifying Pearl Dentifrice at one dollar the box, which, he has found to answer his most sanguine expectations, by rubbing the Teeth with a little on the end of the finger, then, cleansing with water. To be used twice a week.

Extracting teeth and stumps at one dollar each.

N. B. All those who have been under the doctor may have any further assistance GRATIS

ADVICE and assistance to the poor without a FFF

THE general approbation he has met with from all ranks of people in Great-Britain, Ireland, Holland, Germany, the West-India islands, and most Towns on this Continent, for near twenty years, will sufficiently recommended him.

THE antiscorbutic and beautifying Dentifrice to be had in most large towns in America, and by wholesale at the doctor's, Beaufort district, South-Carolina

N. B. The Doctor's Medical Electrical apparatus as usual. He may be consulted at N. 66, Cherry-street

Fig 16 —“Mr” Hornby now becomes “Dr” Hornby *New York Daily Advertiser*, December 15, 1786

On October 3, 1773, in the *Maryland Gazette*, a Dr John M' Ginnis, Surgeon Dentist, announced that he might be “consulted in all disorders of the teeth, gums, sockets, ulcers, cancers, fungus, fistulas, suppurations and inflammations in the gums also the teeth, jaw, head, etc” On December 5, 1774, (*Maryland Journal*), he had “moved to his apartment at Capt White's Tobacconist in Gay Street” and “proposes cleaning the teeth at three dollars, and fixing artificial at twenty-five shillings a tooth” This advertisement appeared in several succeeding issues of the same publication, including February 27, 1775

In the meantime he was in “Talbot, Dorchester, Somerset and Wister Counties in Maryland and expected to again visit those places during June or July of 1775 In the interval he was in Philadelphia on April 26, (*Pennsylvania Gazette*), and “intended to visit Carlisle on May 1st, spend a week at York-town, and a week at Lancaster” He returned to Baltimore where records show advertisements in the *Maryland Journal*, on January 2, 30 and February 20, 1776

In the *Massachusetts Gazette* for January 27, 1771, "Dr Spencer, a dentist, residing on Temple St, Boston," announced "Teeth extracted after an easier method than hitherto practiced", while in Salem, Massachusetts a Dr Louis was practicing the same profession²²

The first record of Daniel Scott is to be found in the *Boston Evening Post* for May 2 1774, although he began his dental practice some years prior to that date. Scott was one of those practitioners who we have previously stated combined his dental practice with a commercial enterprise, in this case with a "Medicine Store" at "The Sign of the Leopard" South End, Boston. The advertisement reads

"Takes this method of returning his thanks to the Gentlemen and Ladies who have done him the honour to employ him as their Dentist, and he presumes he has given them satisfaction, so he would inform them and all the other persons who have had the Misfortune to lose their Teeth that he still continues the Business of making artificial Teeth as usual, in so elegant a manner as to be but little inferior to the natural either in use or Beauty as some hundred of Persons who have experienced them can testify. Where also any Person afflicted with painful Stumps or unsound Teeth may have them removed with peculiar Dexterity and Ease. And all Persons who have the Scourge in the Teeth which threatens their removal though sound may have them cleansed without hurting the enamel or in the least degree impairing them and may be supplied with his Dentrifice Conservator, which is an excellent powder, the best adapted for preserving the Teeth and Gums and preventing them from Aching of any preparation ever offered to the Public. It will cure the Scourge in the Gums bringing the Teeth to their original Whiteness and by a continuance of its use will preserve both Teeth and Gums in a pure state during Life

It is not pretended that it will perform impossibility, that it will make rotten Teeth sound or will ease them when they violently ache, but it will preserve those Teeth sound that are so and cause the Gums to adhere to them and prevent those that are decayed in part from becoming worse"

Daniel Scott, now a dentist, advertises in the *Continental Journal* of Boston, for the first half of the year 1777. He could be found at his "Medicine Store in Ann Street, the Sign of the Leopard, near the Conduit". He alludes to his experience of eight years and the satisfaction he has given to those who have employed him.

Joseph de Labeaume, a surgeon-dentist from Paris, "takes this method" on December 5, 1774, in the *South Carolina Gazette*, "to inform the Public that he has just arrived in Charleston to settle and follow his business"

A Frenchman, Dr Dubuke, "London Occulist and Dentist" left Boston, according to the *New York Constitutional Gazette* of October 18, 1775, and "begs leave to inform the Public, in general, that he practices Physick and Surgery". He also "was glad to undertake the

cure of many diseases, among them cancer" Long advertisements are to be found under dates of November 13 and December 13 (*New York Journal* etc) He had traveled through the eastern Colonies under various names and then left for Philadelphia and the southern Colonies He must have been the worst type of quack and mountebank, for the next month he was branded for stealing, and on March 9, 1776, in the same *Gazette* the following notice appeared

"The famous Dr Dubuke, a Frenchman, who was branded here last January term, for stealing indigo, etc, departed last Thursday from this city in the Amboy state boat, to visit Philadelphia and the Southern Colonies He professes himself a dentist, and has travelled through the Eastern Colonies under various names"

In that same month the first "dental parlor" type of advertisement appeared, when Dr L Butte & Co, Surgeon Dentists, announced in the *Pennsylvania Evening Post*, March 16, 1776, that they

"Beg leave to inform the public, that they intend to follow the said art, and undertake to set artificial teeth in so neat a manner that it is impossible to distinguish them from those which are natural They also clean teeth, however bad, so radically, that in half an hour they look as white as snow, and have tooth drops which cure the tooth-ach in a few minutes Also a plaister which cures corns in the toes in twenty-four hours, price two shillings and sixpence They keep pomatum, and the American oil, which takes freckles out of the face in three days, price seven shillings and sixpence They will wait on any lady or gentleman that shall honor them with their commands

"They live at the widow Fairis', in Arch-street, next door to the corner of Second-street"

This was followed by another in the *Staatsbote* of June 4, 1776, where they stated that they had moved from 2nd Street near the New Market to Chestnut Street, opposite the Sign of the Great Turk It reads very much like the previous one

On June 12 of that same year, 1776, the New York *Constitutional Gazette* mentioned Leonard Fisher, Surgeon-Barber and Dentist who was living in Chatham-Row, nearly opposite St Paul's Church, where he "continues his business as usual, Bleeding, Cupping, and Tooth-drawing" This is the first advertisement of its kind so far uncovered Besides the above-mentioned items he states "He bleeds with finger or spring lancets, undertakes to draw all teeth or stumps if ever so bad, also cleans teeth in the neatest manner, sets artificial teeth which look as natural"

In 1790, Fisher resided at No 114 Queen (Pearl) Street, and in 1798, as a Surgeon-Dentist, at 451 Pearl Street His father (according to *Wealth & Biography of the Wealthy Citizens of New York*, 1845, p 12) left an estate of \$500,000 which was divided among five sons and

a daughter Leonard, Sr., acquired his fortune mainly by the purchase of real estate which, at his death, was worth approximately 100 times what he paid for it. Young Fisher's estate at his death amounted to about \$200,000. Apparently he divided his practice between Philadelphia and New York, for on January 23, 1779, in the *Pennsylvania Packet*, he stated that he was

"Living in Fourth street, between Race and Arch streets, opposite the new German Church, Philadelphia. Takes this method to inform the Public that he continues to practice the art of Dentistry in all its branches. Those persons who have had the misfortune of losing their teeth by applying to him may have teeth transplanted, or natural teeth grafted. He also cleans teeth in the neatest manner, and sets artificial ones from a single tooth to a complete set, which will look so natural that they cannot be discerned from the true ones, he has given sufficient proof of his judgment in this art both in New-York and this city

NB. He will wait on ladies and gentlemen who will please to favour him with their commands."

The next practitioner that we are to consider is a Dr. Fendall of Maryland, whose exact identity is somewhat uncertain, for here again no given name is to be found in any of his advertisements. We are inclined to believe, however, that he might be the Benjamin Fendall born in 1753 near Port Tobacco, Charles County, Maryland. We arrive at this conclusion because of the following known facts in our possession. In the *Maryland Archives* there are recorded three items. One on page 23 (XLVIII) is the same item Henry J. Birkley includes in his *Medical Men in the Revolution*, p. 7. "A Benjamin Fendall of Charles County, in May, 1782, was paid £22 5 6 for medical service rendered to the militia." The second is a letter from George Washington to a Doctor B. Fendall, and Fendall's reply from Cedar Hill, signed with the initial "B", Cedar Hill being the name of an estate in Charles County, which coincides with the address given in the advertisement of November 2, 1779, "May always be procured at Doctor Fendall's residence in Charles County, near Port-Tobacco." Given the above facts, we find that the Fendall family of the above county was one of prominence and wealth, which agrees with a statement made in the July 23, 1784 advertisement in the *Maryland Journal and Baltimore Advertiser*, "kind Fortune has made him independent, and placed him far above the hungry Tooth of Want."

Just how to describe Fendall and his professional activities is a difficult task, for he was a prolific writer of advertisements, most of them being brief but many contain full lectures on dentistry, his qualifications, etc., and often a foot in length of printed type.

He was either a dentist of marked ability, far beyond that of any who were then in dental practice in this country or he was an

undisguised egotist. He states (*Maryland Journal & Baltimore Advertiser* July 11, 1786, and in others) "having been regularly bred to Physick and Surgery", thus he must have studied medicine first, but we have been unable to find where he received his medical training. Also Toner fails to mention him among the Maryland Physicians in his *Medical Men of the Revolution*. This is surprising, for in another advertisement, July 23, 1784, in the above-mentioned newspaper, he states "to serve his country is his Design."

We present the following as found in the closing part of his July 23, 1784 announcement: "What the Doctor has said, he strongly hopes the Impartial Public will readily admit as a candid Declaration of the Truth, and the Language of a Man who would not, from any Inducement deceive them—Undissembled Truth, he thinks, should ever be predominant amongst Mankind. Should the Ladies and Gentlemen find no Relief, or be disappointed in the most sanguine Expectations, from his Operations, he will as readily return the Money, as he received it."

Dente quid horridius nigro, quid pulchrius albo?

DOCTOR FENDALL,

Operator upon the TEETH, is just arrived in this Town, and may be spoke with at Mrs. LYNCH's, in Second Street.

THE Doctor cures the scurvy in the gums, be it ever so inveterate, first scaling and cleaning the teeth from that corrosive, tartarous, gritty substance which impedes the gums from growing, infects the breath, and is a principal cause of the scurvy, which, if not timely prevented, eats away the gums, so that many people's teeth fall out sound. He prevents teeth from rotting, keeps such as are decayed from growing worse even to old age, makes the gums grow firm to the teeth, and renders them white and beautiful, fills up with gold or lead those that are hollow, so as to render them useful, and to prevent the air getting into them and aggravating the pain. He transplants natural teeth from one person to another, which will be as firm in the jaw (without any ligament) as if they originally grew there, and makes and fixes artificial teeth with the greatest exactness and nicety, and without pain, so that persons may eat, drink or sleep with them in their mouths as conveniently as with natural ones, from which they cannot be distinguished by the sharpest eye. He also engrafts teeth on old stumps, and extracts teeth and stumps in the easiest manner, be they ever so deeply situated in the jaw.

His DENTIFRICE he has found to be greatly superior, both in elegance and efficacy, to any thing hitherto made use of for the teeth and gums; it is free from any corrosive preparation, will restore the gums to their pristine state, prevent the tooth-ach, and render the breath delicately sweet, (if the tartarous substance is off the teeth) and will remedy all those disorders which are the consequence of scorbutic gums.—It may always be procured at Dr. FENDALL's residence, in Charles County, near Port-Tobacco, Maryland.

N. B. The sooner Gentlemen and Ladies apply, the better, as the Doctor's stay in this Town is uncertain.

Baltimore, July 19, 1786

For LIVERPOOL,

Fig. 17—Fendall's usual type of advertisement used first on September 4, 1776, and continued through 1786, with the added Latin quotation from Berdmore's 1770 edition *Maryland Journal and Baltimore Advertiser*.

Brice John, Washington
DOCTOR FENDALL,

OPERATOR upon the TEETH,

Is just arrived in this city, on his way to Baltimore,
 and intends returning about the middle of Sep-
 tember next

HE cures the SCURVY in the GUMS, be it ever
 so bad, first cleans and scales the teeth from
 that corrosive, tartarous, gritty substance, which
 impedes the gums from growing, infects the breath,
 and is one of the principal causes of the scurvy,
 which, if not timely prevented, eats away the gums,
 so that many peoples teeth fall out sound. He pre-
 vents teeth from growing rotten, keeps such as are
 decayed from becoming worse, even to old age,
 makes the gums grow firm up to the teeth, and ren-
 ders them white and beautiful. He fills up, with
 gold or lead, those that are hollow, so as to render
 them useful, and prevents the air from getting into
 them, which aggravates the pain. He transplants
 natural teeth from one person to another, which will
 be as firm in the jaw, without any ligament, as if
 they originally grew there. He makes and fixes ar-
 tificial teeth with the greatest exactness and nicety,
 without pain or the least inconvenience, so that they
 may eat, drink, or sleep, with them in their mouths,
 as natural ones, from which they cannot be disco-
 vered by the sharpest eye. He extracts teeth and
 stumps, after the best and easiest methods, be they
 ever so deep sunk into the socket of the gums. His
 DENTIFRICE is quite free from any corrosive prepa-
 ration, will restore the gums to their pristine state,
 will prevent the tooth ach, and render the breath
 deliciously sweet (if the tartarous substance is off the
 teeth) and will remedy all those disorders that are
 the consequence of scorbutic gums. It may be had
 at his lodgings each pot is signed with his own
 hand to prevent fraud.

It is perhaps unnecessary to add, that the teeth
 serve for mastication, for the distinct articulation of
 sounds, and for ornament. The foulness of the
 teeth by some people is little regarded; but with
 the fair sex, with the polite and elegant part of the
 world, it is looked on as a certain mark of filthiness
 and sloth, not only because it disfigures one of the
 greatest ornaments of the countenance, but also be-
 cause the smell imparted to the breath by dirty rot-
 ten teeth, is generally disagreeable to the patients
 themselves, and sometimes extremely offensive to the

olfactory nerves in close conversation. To preserve
 the teeth, to regulate their growth, and to remove
 the vast variety of disorders and deformities to which
 they are exposed, are matters of greater importance
 than is generally imagined, and of such universal
 concern as justly claims the attention of the public;
 for disorders or deficiencies of the teeth, however
 slightly regarded by some people, are inevitably at-
 tended with evils which affect the system, and de-
 formities of them are remarkably hurtful in common
 life. In common life, we every day observe, how
 a slight deformity caricatures every gesture of some
 worthy people, whilst beauty and elegance soften
 the foibles of others, and grace the few accomplish-
 ments they are possessed of. Oratory of the pulpit
 and the bar, and above all the art of pleasing in
 conversation and social life, are matters of the high-
 est concern to individuals but in this no one can
 excel, whose loss of teeth, or rotten livid stumps,
 and fallen lips and hollow cheeks, destroy articula-
 tion, and the happy expression of the countenance,
 whose voice has lost its native tone, and whose laugh,
 instead of painting joy and merriment, expresses
 only defect and disease. But of all the disorders, the
 scurvy is the most destructive to the teeth and gums,
 for it not only brings on ulcerations of the soft parts,
 but also attacks the membranous lining of the sock-
 ets, destroys the nerves at bottom, and deprives the
 teeth of nourishment, in consequence of which they
 become discoloured and loose. Cases of this kind
 occur every day. A sinking breath attends exter-
 nal foulness of the teeth, caries and purulent car-
 ties of them, scorbutic or ulcerated gums, and the
 long lodgment of little scraps of aliment in the in-
 terstices, occasioned by the recesses of the gums. Dis-
 orders of the teeth, as well as other more general
 ones of the whole system, sometimes bring on at-
 tacks of the palate bones, in consequence of which,
 the food in chewing is apt to pass into the nose, and
 the speech becomes disagreeable. When these thin
 bones are once lost they never are regenerated, and
 an artificial is the only remedy. This is artfully
 contrived and fixed in various ways, agreeable to
 the extent, situation, and other circumstances of the
 diseased aperture. When the gums are uneven or
 fallen away, the patient may have recourse to arti-
 ficial gums. This term sounds strangely, and makes
 no small show in an advertisement but it can be
 done. The design of this advertisement is to offer
 my assistance, and to prevent or remove these evils.
 To treat minutely of all the disorders of the teeth,
 and follow them through all the varieties and subdivi-
 sions which occur in practice, would alone furnish
 matter for a large volume, and would be equally
 tiresome to me, and unprofitable to the reader.

FIG. 18—Dr. Fendall's first announcement. *Maryland Gazette* August 15, 1776. A
 comparison of the first sentence and the advertisement of John Baker, Annapolis, 1773,
 will prove it to be a verbatim copy. (See Fig. 31.) The second sentence is from
 Chapter I of Berdmore's *Disorders and Deformities of the Teeth*, likewise a verbatim
 copy with only a transposition of sentences. Beginning with the seventh word in column
 2, compare Fig. 19. In the original this was one long advertisement and not divided

Fendall made broad claims concerning his ability, and in general his shorter announcement in 1786 varied little from the earlier ones. In 1779, (*Maryland Journal* etc November 9), he began to head his announcements with a Latin quotation, which undoubtedly added greater dignity and erudition for Doctor Fendall. This same quotation was obtained, as will be explained later, from the title page of Thomas Berdmore's *Disorders and Deformities of the Teeth*, etc (London 1770) (See Fig 37). It reads *Dente quid horridius nigro, quid pulchrius albo?* "What in the world is more terrible than a black tooth, what is more beautiful than a white one?" At times he announces himself as "Operator upon the Teeth" then again he "is now indefatigable in his Studies in the Art and Mystery of a Surgeon-Dentist." How indefatigable he was in his studies will be shown later.

The following is the newspaper record of Fendall

1776, August 15	<i>Maryland Gazette</i>
September 4	<i>Maryland Journal and The Baltimore Advertiser</i>
September 11	<i>Maryland Journal and The Baltimore Advertiser</i>
1779, September 24	<i>Maryland Gazette</i>
November 2, 9, 16	<i>Maryland Journal and The Baltimore Advertiser</i>
1782, November 26	<i>Maryland Journal and The Baltimore Advertiser</i>
December 17 and 24	<i>Maryland Journal and The Baltimore Advertiser</i>
1784, July 6	<i>Maryland Journal and The Baltimore Advertiser</i>
July 23 (Long)	<i>Maryland Journal and The Baltimore Advertiser</i>
1786, July 11, 17, 21, 28	<i>Maryland Journal and The Baltimore Advertiser</i>
August 15, 22	<i>Maryland Journal and The Baltimore Advertiser</i>
1789, July 23	<i>Maryland Journal and The Baltimore Advertiser</i>
September 1, 4, 11	<i>Maryland Journal and The Baltimore Advertiser</i>

To these must be added Washington's letter of March 6, 1798, and Fendall's reply a year and a half later, August 10, 1799. He never served Washington, but did render service to Mrs. Washington.

Fendall's first professional advertisement which appeared on August 15, 1776 in the *Maryland Gazette* is one that I fear will be apt to mislead historians if they are not careful, for it stamps him as a man of remarkable ability far beyond those of any who were then in dental practice in this country. This problem puzzled me for some time, for the advertisement shows that he was a man who had had considerable experience and a wonderful grasp of dental practice of that time, something one would hardly expect of a native-born beginner. Upon studying his other advertisements, this first one seemed even more remarkable.

Having recognized Fendall's Latin quotation as one that appeared on the title page of Berdmore's 1770 edition, (Fig 37) (the 1768 contains another), it was but natural to examine that book and see if any of the August 1776 advertisement, consisting of two long paragraphs, was therein contained. A comparison of Chapter I, pages three to five "The Design of this Treatise" and the second paragraph of Fendall's advertisement will prove that the latter copied verbatim Berdmore's material, even to the punctuation, with merely a transposition at times of sequence of sentences. Having discovered this plagiarism, the opening paragraph

The Design of this Treatise

To preserve the teeth, to regulate their growth, and to remove the vast variety of disorders and deformities to which they are exposed, are matters of greater importance than is generally imagined, and of such universal concern as justly claims the attention of the public, for disorders or deficiencies of the teeth, however slightly regarded by some people, are inevitably attended with evils which affect the whole system, and deformities of them are often remarkably hurtful in common life

Whatever renders mastication painful or imperfect, not only lessens our relish and enjoyment of food, but also prevents that perfect comminution and mixture of it with the salivary liquor, which is necessary towards digestion, and thence gives rise to an endless train of diseases of the stomach and bowels, at the same time that the body is deprived of its wonted nourishment

Disorders of the teeth also frequently bring on the most excruciating pains and dangerous inflammations, sometimes deep seated abscesses, which destroy the neighboring parts, and affect the whole system by sympathy, or by infecting the blood with corrupted matter, and it is well known, that cutting the teeth carries off an immense number of children, who by due assistance might easily be saved

Deformities of the teeth, as they generally tend to disease, are objects of serious attention, but setting apart a consideration which appears so distant, it is well known that they are often as formidable as disease itself

In common life, we every day observe, how a slight deformity caricatures every gesture of some worthy people, whilst beauty and elegance soften the foibles of others, and grace the few accomplishments they are possessed of

The oratory of the pulpit and the bar, and above all the art of pleasing in conversation and social life, are matters of the highest concern to individuals. But in these no one can excel whose loss of teeth, or rotten livid stumps, and fallen lips and hollow cheeks, destroy articulation, and the happy expression of the countenance, whose voice has lost its native tone, and whose laugh, instead of painting joy and merriment, expresses only defect and disease

A foulness of the teeth is by some people as little regarded as it is easily removed, but with the fair sex, with the polite and elegant part of the world, it is looked on as a certain mark of nastiness and sloth, not only because it disfigures one of the greatest ornaments of the countenance, but also because the smell imparted to the breath by dirty rotting teeth, is generally disagreeable to the patients themselves, and sometimes extremely offensive to others in close conversation

The design of this short treatise then, is to obviate and remove these evils, to render the art which I profess of more extensive utility, to communicate to the public the advances I have made in it, and lastly, to rescue it from the indifference and unmerited contempt with which it has hitherto been treated, by those especially who are pleased to comprehend under the idea of tooth-drawing or tooth-scraping all that is necessary to be known or advanced on the subject, and therefore place on an equal footing with the surgeon dentist, the tooth drawing barber and itinerant mountebank

had to be located. Here again it was but a simple process of elimination. John Baker visited Annapolis in 1773 and inserted an advertisement on September 16 (see Fig 31) which proved the missing link. A comparison of the two proved Fendall's to be a verbatim copy of Baker's, even to the dentifrice claims. Thus the mystery of Fendall's advanced knowledge of dentistry becomes clear and understandable.

Fendall's next advertisement appeared in the *Maryland Journal*, etc., for September 4, 1776, some three weeks later, and an examination again proves it to be the verbatim copy of Baker's. It is interesting to note that he too was a disciple of transplantation of teeth. "His stay in town will be only one week."

On November 2, 1779, in the same newspaper, Fendall began to use the Latin quotation, and remarked that his "dentifrice was communicated to him by Doctor Baker." In another notice of the same year he states "I have, for these six years past" devoted them to the dental art. That would make his entry into dentistry in 1773, but generally speaking we have found such claims unreliable unless supported by further evidence which we do not have as far as Fendall is concerned. It might be that he dates his beginning from Baker's advertisement of that year, and which he used but so far no one has recognized.

In general, Fendall's shorter advertisement in 1786 varied but little from his earlier ones in 1776, the phraseology remaining as Baker wrote it in 1773. This is significant as it shows little progress during these years.

The one dated July 23, 1784, and which will be found later, is difficult to fit into the picture, for here we have an unusual combination of facts. The opening and closing paragraphs of broad claims are not in keeping with the remaining material in the advertisement. They are the opinions of a boastful individual, in contrast to the careful observations made by one well versed in dentistry.

A careful study of this announcement reveals that the material in the third paragraph was very similar to the center third of Poise's of 1769 (Fig 12). The fourth long paragraph begins again with Baker's notice of 1773 and continues to the second dash (—) "The doctor having confined" etc., is from Berdmore's "Preface." The portion within the next series of dashes "The teeth and gums" can be found in Berdmore, page 32, except that "he has a case wherein he extirpated an excrescence of a young lady, as large as an Indian Walnut." Berdmore, on page 61, relates a similar experience in a young man. Other material is to be found on page 138. Thus one can see how difficult it is to obtain an honest appraisal of Fendall's dental activities in this country. His long delay of a year and five months, though ill, in replying to Washington's letter, and then submitting a bill to be paid at the time

of delivery, certainly does not create in our minds a person of great responsibility and appreciation of his profession

In 1782, Fendall again visited Baltimore during November, for on the 26th a footnote reads "The sooner Gentlemen and Ladies apply the better, as the Doctor's stay in this Town is uncertain" On December 12 he advertised he "intends leaving town Saturday, December 21st," but on the 24th he "has been solicited and prevailed upon (owing to more applications) to continue a few days longer in Town, will however undoubtedly leave Town on Saturday morning, the 29th of this month, etc"

On July 23, 1784 the second lengthy advertisement appeared, to which we have already alluded Because of the smallness in type and the difficulty in reading it, we have thought it advisable to have it reset, for it differs so from any other advertisement that is to be found during this whole period

"DOCTOR FENDALL,

HAVING just arrived in Town, has taken up his Residence, for a few Weeks, at Miss Young's, in Calvert Street

It is not solely by Lucre, or pecuniary Views, the Doctor is prompted to offer his Assistance to the Public, he is urged by a Desire to serve them, kind Fortune has made him independent, and placed him far above the hungry Tooth of Want - To serve his Country is his Design, and to remove the vast Variety of Disorders the Teeth, &c are exposed to These are Matters of universal Concern, and, he thinks, essentially require the Attention of the Public, though, he is sorry to say, too slightly regarded by many

The Teeth are often attended with Complaints, which injure the whole System, Deformities of them are frequently seen, in common Life, to be prodigiously injurious The Orator in the Pulpit, or at the Bar, will cut but an indifferent Figure with the Loss of Teeth, the private Gentleman and the fine Lady suffer no Disadvantage, in social Life, from a Mouth full of Teeth, white, regular and polished as Ivory How a Deformity, in this Particular, caricatures the Appearance of many, amiable in every other Feature, whilst beautiful and elegant Teeth make some Countenances agreeable, which have little else to recommend them

Dr Fendall cures the most inveterate Scurvy (as it is vulgarly termed) in the Gums, by carefully scaling from the Teeth that corrosive tartarous Substance, which impedes the Gums from growing, infects the Breath, and is a principal Cause of the Scurvy Thus, if not timely prevented, eats away the Gums, so that many People's Teeth fall out sound He prevents Teeth from rotting, such as are decayed, he keeps from becoming worse, even to old Age, makes the Gums grow firm to the Teeth, and renders them white and beautiful, fills with Gold or Lead, those that are hollow, so as to render them useful, and to prevent the Air from getting into them and aggravating the Pain, he transplants natural Teeth from one Person

to another, which will be as firm in the Jaw (without any Ligament) as if they originally grew there, he engrafs natural Teeth on old Stumps, and makes and fixes artificial Teeth with the greatest Exactness and Nicety, without Pain, so that the Patient may eat, drink and sleep with them in the Mouth as natural ones, from which they cannot be distinguished by the sharpest Eye. When he fixes in artificial Teeth, if not more than four, he gives them an Enamel, which will preserve its whiteness by Care, and entirely retain it. This Method of fixing Teeth, is different now from all former Methods. His antiscorbutic Tincture (the peculiar virtues of which are well known in this Town) he still recommends, it is greatly superior, in Elegance and Efficacy to any Thing hitherto made use of for the Teeth and Gums, it is free from any corrosive Preparation, will restore the Gums to their pristine State, prevent the Toothach, and render the Breath delicately sweet (if the tartarous Substance is taken off by a skillful Operator) and will remedy all the Disorders which are the Consequence of scorbutic Gums. Every Person's Teeth may not want scaling - To those happy few, if they mean to keep them so, he recommends the above Dentifrice as the only rational Method to preserve the Beauty and Goodness of their Teeth and Gums - [The Doctor having confined himself to that Part of Surgery which concerns the Dentist's Art conceives he has not needlessly employed his Time, especially when it is considered how extremely beneficial this Art is to Mankind - He begs the Attention of the Public, and particularly of those who have Children affected with Disorders and Deformities of the Teeth. The Teeth and Gums are liable to the following Complaints, various kinds of Pains proceeding from different Causes, Desquations falling on the Gums, Obstructions and Inflammations of the Nerves and vascular Parts of the Teeth,] Ferid Matter generated in the Neighborhood of the Teeth, fungous Excreescences and Uclers of the Gums, (he has a Case wherein he extirpated an Exerescence, in the Mouth of a young Lady as large as an Indian Walnut), Recess of the Gums, Exposure of the Roots of the Teeth, Tartar of the Teeth, and the Recess of the Gums and Toothach occasioned by tartarous Concretions long neglected attended with bad Consequences, destructive to the Teeth and Gums and brings on Inflammations - The discoloured Enamel he fears is too often mistaken for Tartar, Looseness of the Teeth, Change of Position, Protrusion total Luxation - Fractures of the alveolar Part of the Jaw Bones of sharp Splinters, Portions of the Teeth left behind in Extractions, Bruises and Lacerations of the Gums, Matter collected in the maxillary Sinusses and often in the cancellated Substances of the lower Jaw, Caries, and Exostosis of the Bones which form the Sockets of the lower Jaw, a singular Case (and Cure of his own) where a Lady lost the Coronoid and Condylloid Processes, with a large Portion of the lower Jaw, by a Caries in the Tooth - Various Kinds of Caries or Rots in the Teeth, Soreness Softness, Bleeding of the Gums, bad smelling Breath, and Loss of Palate]

What the Doctor has said, he strongly hopes the impartial Public will readily admit as a candid Declaration of the Truth, and the Language of a Man who would not, from any Inducement, deceive them. Undissembled Truth, he thinks, should ever be predominant amongst Mankind. Should the Ladies and Gentlemen find no Relief or be disappointed in their most sanguine Expectations, from his

Operations, he will as readily return the Money, as he received it - He will wait on Gentlemen and Ladies in Town, still charging no more than if waited on by them, if sent for 4 or 5 Miles into the Country, where there are that Number of Patients, his Price will be the same as in Town

After the Doctor leaves this Town, he intends visiting the City of Annapolis, on his Return Home "

From Annapolis, July 11, he wrote an advance notice

"DOCTOR FENDALL, who has been, and is now, indefatigable in his Studies in the Art and Mystery of a SURGEON DENTIST, has brought it to great Perfection, having been regularly bred to Physick and Surgery, will visit Baltimore in a few Weeks, when he will render the Inhabitants of each Place, and those in the circumjacent Parts, who choose to apply for Assistance, every acceptable Service To his Friends and old Customers, he conceives himself under the greatest Obligations for their confidence in him "

During this period of our history, the general run of professional advertisements read very much alike, for that reason it is difficult sometimes to distinguish the quack from the honest practitioner. The better-educated he happened to be the more deception he practiced. That Fendall knowingly deceived the public as to his wide experience and type of practice, there can be little doubt. If he had been "regularly bred to Physick & Surgery", it makes his case all the more flagrant. As a result, those who are not acquainted with the truth even to this day have accorded him, because of the knowledge he claimed, a false position in American dentistry.

In the lengthy advertisement of July 23, 1784, he concluded his qualifications by saying "What the Doctor has said, he strongly hopes the impartial Public will readily admit as a candid Declaration of the Truth, and the Language of a Man who would not, from any Inducement deceive them. Undissembled Truth, he thinks, should be predominant amongst Mankind." Yet he not only continued to make use of Berdmore's writings, as he did in his advertisement of August 15, 1776, but became more brazen by including Berdmore's Chapter heading from Part II, Chapters 3 to 13 (the part inserted within brackets) as his own qualifications and experience. Is it a mere coincidence that he should have had "a case wherein he extirpated an excrescence, in the mouth of a young Lady, as large as an Indian Walnut", when Berdmore on page 61 describes as his own a similar case and size of walnut except that his occurred in that of young man?

Fendall's advertisements do however furnish us with valuable information, for they supply us further evidence that our Colonial dental practitioners possessed and made use of the best of the European dental literature of the period. Later we shall learn how James Gardette in a letter to his brother dated March 30, 1791, profited by

and therefore recommended that he secure and study the works of Pierre Fauchard (1728), Etienne Bourdet (1757) and Robert Bunon (1743), whilst John Greenwood utilized John Hunter's *Natural History of the Human Teeth* to record his own personal experiences and observations

On Friday, July 21, 1786, he announces his arrival in Baltimore, and on the 22nd the following advertisement appeared

"Dente quid horridius nigro, quid pulchrius albo? Doctor Fendall, operator upon the teeth is just arrived in this Town, and may be spoke with at Mrs Lanch's in Second-Street

N B The sooner Gentlemen and Ladies apply, the better, as the Doctor's stay in this Town is uncertain "

Our last advertisement is dated September 1, 1789, but undoubtedly Fendall remained in practice for some years thereafter, for on March 6, 1798 the following letter was sent by George Washington

"Mount Vernon, 6th March, 1798

Sir

Mrs Washington has been long in expectation of receiving what you took away unfinished, and was to have completed and sent to her—and prays that it may be done without further delay, as she is in want of them and must apply elsewhere, if not done "

A year and five months later Fendall replied as follows

"Dr Sir

Within this Day, or two, I found myself, so much relieved, from my long continued and painful illness, tho I use my left arm, with some difficulty, as to be enabled to finish Mrs Washingtons Teeth, and you'll receive them, safe, I hope, by my Servant, They are—as nearly as I can now, recollect—like the old ones—as there are so many ways, to make, and shape Teeth - twou'd be almost impossible, to make them, exactly alike—after some time, without having the old ones present The Model, I took, has, also, by accident, sustained some injury I am extremely sorry, indeed, yr Lady has been obliged to wait so long—owing to my long absence from home and my illness, after I had arrived at Cedar-Hill I wish you & Mrs Washington to have every conviction within yourself, I ever will with promptitude, and with pleasure, serve you both, whenever you may choose to command me—if in my power, and I fondly flatter myself, you'll both deem my excuse to be sufficiently admissible—at this Time Please to present my most respectful comp to Mrs Washington & believe me, Dr Sir

Yrs with due respect

Cedar Hill, Aug 10th 99 B Fendall

Gen Washington, to B Fendall Dr

1799

Aug 10 To making 4 artificial Teeth)

with an enamel for Mrs W) Twenty Eight Dollars
which, if the Genl chooses—he can enclose me by my Servt John —
Then recd the above in full

B Fendall "

During the period of the Revolution, the city of New York remained in the hands of the British. In the *New York and Country Almanac*²⁴ for 1776 and in Game's *New York Gazette and Weekly Mercury* (June 9 1777) we read of Richard Dimfoot **Dusturge**, a "surgeon from Europe, mid-wife, oculist, and dentist, who makes artificial teeth, which perfectly resembles the natural who resides in Duke Street in the house formerly of Isaac Kip" (No 13)

The following March (*New York Gazette and Weekly Mercury* March 9, 1778) there appears an advertisement of a Doctor **Dastuge** who intends sailing in April for Europe. Apparently Dusturge in the meantime had changed his name to Dastuge, for he had the same address on Duke Street and his advertisement corresponds closely with the previous one.

In consequence of his sailing "he would be much obliged to those indebted to him to discharge their accounts, which will enable him to settle with those to whom he is indebted." In this respect, times do not seem to have changed a great deal. "He will continue practicing physie and surgery until the hour of his departure, likewise making artificial teeth. He has great success in performing an operation on the teeth, which takes off the tartar, cleanses and makes them white, in easy manner, no way painful."

On April 15, 1780, Rivington's *New York Royal Gazette* offered the news of Dastuge's return to New York, after having studied in the principal schools of Paris, and who operated on the teeth and constructed artificial ones. He continued in practice through the year 1782.

The *Maryland Journal*, etc., on November 10, 1777, called attention to the fact that a "Dr. **Battamps** cures the most violent toothache in less than an hour." Just how he did this he failed to state, and we have no other record of him. In the *Boston Gazette*, December 22, 1777, the following notice appeared: "A few surgical and dental instruments for sale. The lowest price for same two hundred and eighty continental dollars."

4 Local Practitioners

Most of the dentists so far mentioned had passed from one colony to another, visiting the principal cities and towns. In Boston, New York and Philadelphia, a few practitioners began to appear whose practices were strictly local. One amongst these began to play a most important part in the furtherance and development of dentistry. Little has been written relative to Isaac **Greenwood**, the senior, (1730-1803) and the greater part of that is erroneous, as is much of the material concerning **Baker**, **Revere** and others. In later chapters, a more detailed record will

be given of their services to dentistry. It is fairly certain, however, that Isaac Greenwood did not become interested in dentistry until about 1778.

James Gardette is supposed to have arrived from France in 1778 and to have practiced dentistry in Newport. From available records it is established that he did not begin in New York until 1783 and that the following year he opened an office in Philadelphia, where he continued until his retirement in 1829. His interesting career will be considered in a special chapter.

The next man to make an appearance was James McKinzey, a dentist from Dublin. In the New York *Commercial Advertiser* December 11, 1779, he announced miracles:

"Respectfully informs those whom it may concern, that he perfectly performs the following cures, viz the Scurvy in the blood or gums, Scirrhus tumours, and Cancers without cutting - The Ague in five days, the Jaundice and King or Lin cough in eight days. Also, puts in Artificial Teeth from one to an entire sett, not to be distinguished from natural by the most accurate eye, and done in the most tender manner. He prepares a Tincture that prevents Teeth partly decayed, from becoming worse, fastens such as are loose, and prevents disorders in the Teeth of Children, at 4s 6d per bottle. Tooth Powder of the best quality, at 3s 6d per box. He attends Ladies and Gentlemen at their houses, to clean teeth or perform any operation on the shortest notice, and when the tooth will admit, perfectly cures the tooth ach, without the painful operations of drawing, in ten minutes."

Following McKinzey was a Dr. D. Hunter, who was located in New York in 1779, as indicated in Rivington's *Royal Gazette*, July 22, 1780.

In 1780 there was a Lee (*Federal Gazette*, May 6) operating in Philadelphia, and a Brown in Boston.

The latter states that he was a "Surgeon and Dentist from Denmark." We find advertisements by him in the *Boston Gazette and Country Journal*, April 21, 1783, *Providence (R. I.) Gazette*, June 26, 1784, and *Worcester Spy*, August 19, 1784.

An interesting observation in a letter written by Miss Rebecca Franks in 1781²⁵ on Long Island to her sister, Mrs. Abigail Hamilton, alludes to a certain New York belle, saying "Her teeth are beginning to decay, which is the case with most New York girls, after eighteen." The writer, who in January, 1782, became the wife of Sir Henry Johnson, Bart, of Bath, was a daughter of David Franks of Philadelphia, Commissioner of British prisoners.

In 1780 there arrived from Europe one of the most important and outstanding characters we have so far considered, a Mr. John Temple-

man Almost immediately upon reaching our shores he located in Newport, Rhode Island and in his first advertisement he opens up new fields in dentistry and presents a new type of announcement that is most enlightening and different from the exaggerated boastings of many of his predecessors Apparently prior to his arrival in this country he had served under a good, practical man, and thus brought with him adequate knowledge of his profession

Templeman advertised in the *Newport Mercury* (November 23, 1780)

"TILL subscriber begs leave to inform the public, that he proposes to continue the Surgeon Dentist business during his stay in Newport, which will be but a few weeks—He cures the scum in the gums, extracts and transplants teeth, cleans, scales, plumbs and substitutes artificial teeth—He likewise gives the teeth proper vacancies, so that they may with ease be kept clean, regulates childrens teeth, eases teeth that have lost the enamel and restores them to the use of mastication Plumbing of teeth, is to fill up the cavities with gold or lead, in such manner is to prevent them from decaying or pain Sealing the teeth, is to take from them an infectious tartar, which destroys the enamel, eats the gums, gives the scum, and frequently causes the teeth to drop out As the strictest attention will be paid, those persons who apply may depend on receiving great advantages from their humble servant

JOHN TEMPLEMAN

"He may be spoke with at Capt Benjamin Almy's Newport, November 16, 1780 "

From this advertisement we learn of the earliest attempt in this country to regulate children's teeth, and the use of crowns ("cases teeth") to restore teeth for function Here likewise is an attempt to educate the public as to what constituted the "plumbing," meaning a tooth filled, and "scaling the teeth "

No attempt was made in Templeman's announcement to mislead the public, instead, he presented a clear statement of the duties performed by one who understood his profession He was one of the earliest to appreciate the value of the contact points between teeth, so that the food might be easily removed and the breaking down of the channel prevented

A year later we find Templeman visiting Providence (*Providence Gazette*, etc, April 14, 1781) en route to Boston, where "he decided to make his principal residence " "He removes for the present with every assurance of returning to Providence within six months, being now on a progressive tour through this and the neighboring States The peculiar Civilities which his Practice as a Surgeon-Dentist has been honored with, excite his utmost Gratitude " He evidently made Boston

his headquarters, for in January 1783 we find him in Newburyport, and also in Salem, Massachusetts (*Gazette*)

The *Boston Gazette and Country Journal* for April 23, August 29 and October 8, 1781, contains an even more interesting advertisement of Templeman. It states

"Encouraged by the success of his practice in different parts of Europe and America, begs leave to acquaint the public, That, he is supplied with material with which, and a dexterity peculiar to the art

He preserves the teeth,
Cures the scurvy in the gums,
Extracts and transplants teeth,
Seals teeth,
Substitutes artificial teeth
Gives the teeth proper vacancies,
Regulates children's teeth,
And plumbs concave teeth

which prevents their breaking down or being offensive, besides many operations too tedious to mention, and without the least pain (except that of extracting) since sealing the teeth is carefully to take from them an infectious matter, which destroys the enamel, eats the gums, renders them spongy, ulcerated and incapable of affording any support. Its being removed, which is not in the power of composition" [no doubt referring to tooth powders] "to effect, renders the gums firm, and leaves the teeth in their natural purity. Many people blame the climate, etc., for the loss of their teeth—But it is too often the case, as I've observed in the course of my practice on the Continent, that but few people take care of their Teeth, till they become defective. The Europeans are remarkable (particularly the French) for their good and beautiful Teeth, owing to their own care and knowledge of the art."

Soon after the evacuation of New York in November 1783, Isaac Greenwood, Jr., son of Isaac, of Boston, and elder brother of John, established himself in New York City. In a separate chapter his history will be considered in further detail as well as that of Josiah Flagg, who began the practice of dentistry about the same time.

In Rivington's *Royal Gazette* for 1782, a party at 28 Maiden Lane advertised for "front teeth" at four guineas each (see Fig 62)²⁶ This unknown dentist will be described in a chapter under Jean Pierre Le Mayeur, who until 1934 was but a name,²⁷ confused with that of another, Lemaire, some years later practicing in Paris. His history proves interesting indeed, and from it may be seen just how much material has lain for years waiting to be unearthed.

On September 21 1783, the *Pennsylvania Journal* begged

"leave to inform the ladies and Gentlemen of Philadelphia that Mr Chubb, Surgeon-dentist, effectually cures every disorder incident to the gums, with the greatest ease. Also to implants natural teeth from one mouth to another. Any person having a root of a tooth, may have one fixed on it so as not to be discerned from any other. Fastens loose ones that in every respect will answer their first strength. It is frequent that teeth will project outwardly or inwardly, by a small operation attended with no pain to the person, he refixes them so as to be quite even. He has likewise a peculiar method of setting artificial ones, so that the person may take them out and replace them themselves, with the greatest ease, from one to a whole set.

"He has a method superior to most other dentists, of fixing natural teeth upon the gums, when there is not any root, in the most solid manner, and without giving the least pain, they are as useful as natural teeth, are set next and regular, and are very light in the mouth, they always retain their colour, are more durable than most other artificial teeth, and very much assist conversation. The most violent tooth-ach immediately eased. Teeth sealed and cleaned. Decayed teeth stoped so as to prevent them from aching, with either gold, or lead. If his advice is properly followed by the experience he has obtained and from the many careful observations he has made, he flatters himself with the hope of giving satisfaction to those, who will honor him with their commands.

"N.B. Every operation performed on the most reasonable terms, and teeth drawn gratis for the poor. He may be spoke with at Mr J Mays, in Chestnut street, between Front and Second Streets."

Again on February 24, 1784, the same gentleman placed in the *Pennsylvania Gazette* another notice in which he added to his other qualifications that he could fix "obturations artificial palate"

"The utility of the teeth, and the little care that is taken to preserve them, is remarkable. The origin and formation of the teeth is the work of nature, but their preservation depends generally on the assistance of an experienced dentist, tho' none of our members are of more utility, yet they are most neglected, while nothing is more agreeable than cleanliness, and principally that of the mouth. It is well known uncleanness destroys them and gives a disagreeable breath, on the other hand, the beauty of a fine set of teeth, when taken good care of, with the good effect of making the breath sweet and agreeable, must have met everyone's observation, all which may be attained with a little trouble, every morning cleansing them with proper remedies and a little milk-warm water, which I recommend. In the meantime it will be necessary for persons who have scales on their teeth, to have them cleaned by an experienced dentist. The following are the proper remedies for cleaning, whitening, and preserving them, viz

"A box of tooth powder 5s A pot of dentifrice opiate 6 s A pot of dentifrice antiscorbutic opiate 12 s Souveraine water for the above use, preventing many disorders in the mouth, 15 s Dragon root, a piece 2/6 New invented tooth brush 2/6 A plial with a composition for easing the toothache 7/6 "

From September 29, 1784 until March 1785, there appeared in the *Independent Journal*, New York, an advertisement which is reproduced in Fig 20

W A N T E D.
F R O N T T E E T H, for which
 Two Guineas a piece will be given,
 by J BROWNE, Surgeon and Dentist,
 No 6, Nassau-Street
New-York, Sept. 29, 1784. 87

Fig 20 —An advertisement of a practically unknown dentist, J Browne The first to have his name appear in the *New York City Directory*, 1786

In the same newspaper from July 1 to November 19, 1785, Browne again brought to the public's attention that he had "removed a few miles from this City, for the Summer, but will be in Town every Wednesday, at his Room, No 9, Little Queen-Street, next door to Colonel Burr, with whom letters may be left, which will be punctually attended to

Wanted, FRONT TEETH, for which Two Guineas a piece will be given—Apply every Wednesday "

The *New York City Directory* for 1786 listed him as its only dentist, giving the same address

About this time there was a Philip Clumberg, barber and tooth-drawer, who resided on Arch Street between Second and Third Streets in Philadelphia He was the cause of much misfortune to his patients On October 15, 1784 in the *Freeman's Journal* there appeared the following notice

"Let me seriously advise you to lay aside the performance (if you so call it) Of tooth drawing, as you have this day done me great injury in your attempt, or I would say barbarous and violent exertion Indeed the consequences of the fracture you have produced in my jaw and the quantity of Gums and flesh torn away by your instrument and fingers is not and will not be known for some days Dr Baker has just left me, after extracting the splinters of bone you occasioned I expect every moment to spit out the two sound teeth you have displaced

Yours, etc ,

John Felsted,

The corner of Thurd and Vine streets "

Occasionally we find an individual with a keen sense of humor, even under trying circumstances, as may be seen by the notice, repro-

duced in Fig 21, which appeared in the *Pennsylvania Journal and Weekly Advertiser*, November 1784, evidently intended for this same Clumberg

On TOOTH DRAWING.

Addressed to a certain BARBER, in Arch Street
If the tooth complained of is a sound one, and very firm in the socket, by all means *advise* the removal of it, and to make sure of the half dollar, tell the patient you only mean to *try* if it is loose, and instantly tear it out

Always draw a sound tooth to cure a pain in the jaw, as the loss of a sound front tooth is attended with neither inconvenience nor deformity

When you are determined to pull out a tooth, it is by no means necessary to separate the gum from the tooth, by an instrument called a scaricator, before you apply the lever

Should the tooth be situated *liberal* two other, it will be perfectly well done to drag it *forward*, through a smaller space than the body of the tooth, as there will be no risk of dislodging the foremost teeth, nor tearing away the gums and sockets of the adjacent

When you fracture a jaw by attending to these rules, it will not be at all cruel or *barbarous*, to twist and jerk away with your fingers the unfortunate tooth, hanging by no thing more than splintered bone, gums and flesh of the lip

The whole art of tooth drawing consists in a strong arm and a stout piece of rusty iron

It is very prudent when you have broke away *an inch square* of the jawbone to conceal it in your handkerchief, and make a precipitate retreat from the sufferer's apartment, and when you are accused by *one out of millions* of having done mischief, vindicate yourself with the proffered assistance of a most insignificant animal, by his insolence, and a pitiful attempt at wit

Vine Street

§

Fig 21 —An unusual advertisement appearing in a Philadelphia paper for 1784 by one who had had an unfortunate experience rendered by the barber, Philip Clumberg *Pennsylvania Journal and Weekly Advertiser*, November 6, 10, 13, 1784

Beginning in the *Freeman's Journal* (Philadelphia) of August 11, 1784, and continuing until 1800, there appeared a long series of newspaper notices by Andrew Spence, Dentist, from London

"Dentist from London being just arrived in this city, where he proposes to follow his profession, begs leave to inform the public that he flatters himself he will give general satisfaction to the citizens of Philadelphia, as he had the advantage of being educated under the tuition of Dr Thomas Richard Spence, Dentist, to his Britannic Majesty, whose extraordinary skill is so well known in the world "

In the *Pennsylvania Journal* December 11, 1784, he stated

"Dr Andrew Spence, educated under his uncle, the late Dr Thomas Spence, Dentist to his Britannic Majesty, continues to exercise all the branches of the Profession of a Dentist "

On October 31 and November 14, 1785, in the *Boston Gazette*, Spence "begs leave to inform the public, that he is arrived in Boston,

and performs every operation relating to the TEETH such as Cleansing, Extracting, Pivoting, etc."

He returned to Philadelphia the first of the year (*Pennsylvania Journal*, January 7, 1786) and resided on Fourth Street. In the *Federal Gazette* for December 15, 1790, he announces his removal to 120 Second Street, where he continued to live during 1791 (November 2) and 1792 (September 3), in fact, up to 1798. *The Gazette of the United States*, September 4, 1798, and August 28, 1799, show him practicing in St Andrew's Square. Each of these notices merely called attention to the change of address.

He apparently established a clientele among the foremost people of Philadelphia as well as within the medical field, judged by the remarks of Benjamin Rush upon his death. At times, Spence looked after the teeth of Washington's family, for in the latter's account book under the date of March 17, 1795, there is the following entry: "Paid Dr Spence for attending Miss Custis and for tooth powder."

Again another, dated June 6, 1796, "Paid Dr Spence for cleaning teeth."

1799 May 17 To Cleaning M ^{rs} Meridath's teeth	£ 1 2 6
To Drawing two teeth for D ^o	1 2 6
To Cleaning M ^{rs} Meridath's teeth	1 2 6
20 To Attending M ^{rs} Meridath	7 17 6
To a Box of Tooth Powder for M ^{rs} Meridath	7 6
June 28 To Attending M ^{rs} Meridath	3 9 6
1800 Feb 20 To Attending M ^{rs} Meridath	7 17 6
To Attending M ^{rs} Thomas Meridath and pulling two teeth	1 2 6
To a Box of Tooth Powder for M ^{rs} Thomas Meridath	7 6
Total	£ 24 11 6

Andrew Spence
May 27 1800

Fig 22—Receipted bill signed by Andrew Spence of Philadelphia (Courtesy of the New York Academy of Medicine)

The statement, reproduced in Fig 22, for professional services rendered from May 17, 1799, to February 20, 1800, for Mr T Meridath is of great interest, for it is rare that one is fortunate enough to secure

any of the early bills, at the same time it enables us to present his signature

According to the *Philadelphia Directory* for 1799, Spence was then located at 120 South Second Street. He died in that city. In the office of Recorder of Wills City Hall, Philadelphia, there is a copy of his last Will, dated October 9 1805, making his beloved wife, Mary Spence, sole Executrix and guardian of the children, with provisions for their education.

George L. Parmele in his *One Hundred Years of Dental and Oral Surgery* (Hartford 1892) writes "A Dr. Spence is mentioned as having had some instruction from Le Man [Le Mayeur] and practicing in Philadelphia somewhere about 1790." This will be discussed under Le Mayeur as being improbable.

In November of 1785 John Greenwood returned to New York City and began to play an important role in directing the path which dentistry was to take. His life and activities will be described later. A sharp contrast to the work of John Greenwood may be observed in the technique claimed by John Salse in the following notice, *Independent Journal*, November 9, 1785, and again June 25, 1787, *New York Journal Weekly Register*.

"TOOTH-ACH

JOHN SALSE, from Canada, cures the TOOTH-ACHE almost instantaneously, without Instrumental Operation, or any pain to the Patient, only with a touch of the Finger, a method he acquired whilst among the Indians. He may be spoke with at his lodgings at No. 51 Chatham street."

Towards the end of May, 1786, in the *Ship Edward*, under Captain Coupai, there arrived in New York a Mr. Bartholomew Ruspini, the son of Chevalier Ruspini, Surgeon Dentist of Pall-Mall, London, who "having been regularly instructed in his Father's profession by the first Practitioners of London and Paris, offers his services to the Public, and may be consulted at No. 34, Hanover Square."

On May 31 the *Independent Journal* says "he is likely to prove a great acquisition to this country, from his knowledge and personal abilities in that useful Profession." He advertised his Dentifrices, Powder and Tinctures, as well as his Styptic Solution.

According to the above journal of June 21 "This day is published by Mr. Rivington and Mess. Berry and Rogers, The Eighth Edition of 'A Treatise on the Teeth' adapted to every capacity, by Mr. Ruspini." This is apparently incorrect as the eighth edition did not appear in London until 1797, while so far no copy of the American edition has been located. (Fig. 23)

Mr R U S P I N I,
(Son of Mr R U S P I N I Surgeon Dentist, of
Paris, and of London)

HAVING been recently settled in his
father's profession by the most perfect
method in Paris, offer his service to the
Public, at my new establishment No 34, Hanover
Square, by the most perfect method of
the Art, and the most effectual method of
preparing teeth in a healthy and beautiful state
to last for ever.

RUSPINI'S Dentrifice Powder and Tincture,
may be had in boxes and bottles, at 12s each,
at his house, and at Mess Berry and Rogers'
Also RUSPINI'S extraordinary *Styptic Solution*,
which has been found to be efficacious in all kinds
of Hemorrhage, or violent effusions of blood.

This Day is Published by Mr RIVINGTON,
and Mess BERRY and ROGERS,
The English Edition of
*A Treatise on the Teeth, adapted
to every Capacity.*
By Mr R U S P I N I

Where this is sold the second Edition of the
first of the above mentioned *Styptic Solution*,
which is by a great number of the Faculty in
London

66

Fig 23 —Mr Ruspini's announcement of his father's *Treatise on the Teeth*, 8th edition
Independent Journal, June 21, 1786

About September (same Journal, 13) he removed to No 4 Crown Street, near Bowdoy, and proposed going South in November, to remain until spring

Ruspini evidently returned to New York on January 25, 1787, for the *New York Journal Weekly* offered the information that he, "finding his engagements abroad in the morning are attended with very great inconvenience, begs leave to inform his friends and the public in general that for the future he means to attend at his rooms, No 42 Hanover Square from seven o'clock in the morning till twelve o'clock noon" How long he remained here is uncertain because later we find him in London

John Brenon from Dublin announced on July 18, 1787 (*New York Daily Advertiser*) a "surprising performance of slack wire and dexterity of hand" and finished the advertisement by saying "Said Brenon cures the Tooth ache without drawing—No Cure no Pay For the Poor Gratis"

In Baltimore, M^r Jeanin, a dentist from France, inserted an advertisement in the *Maryland Journal and the Baltimore Advertiser*, March 6 and 9, 1787

Two years later Clark Greenwood began to practice in New York, first with his brother, John, and then intermittently by himself, while on May 5 1789, Richard Cort [and] Skinner was at work in Philadelphia. A more lengthy sketch of both of their careers will be found in another chapter as well as consideration of William Pitt Greenwood, who in 1790 was located in Salem, Mass

In 1790, (*Maryland Journal*, etc., July 27), there was in Baltimore a physician and surgeon, named James Morrill of Switzerland, whose notice read "cleans teeth and has an excellent dentifrice" while in Philadelphia, James Molan (*Federal Gazette*) a bleeder, stated on February 10, 1791, and November 12, 1792, that he was also a surgeon-dentist. He again appeared in print on August 2, 1796, in the same journal, "having returned from visiting the principal islands in the West Indies." On September 23, 1791, Morrill went to Baltimore (*Maryland Journal*) "intending to reside there with his family" and promised "that he could produce satisfactory testimonial of his ability"

During the same month, in the same newspaper (September 27) Isaac Bassett, a dentist "having practiced in this Town" took that method to "thank his friends and the public in general for the favors he has received." This advertisement was repeated on April 10, August 17 and 24, and September 7 and 18, 1792

On April 5, 1793, (*Maryland Journal*, etc.), although he still claimed to be a dentist, he had dropped the dental advertisement and said only "Career ended." Bassett continued to practice in Baltimore up to about 1808. In the meantime we find that in the *Maryland Journal*, November 4, 1797, shortly after Thomas Bruff patented his "tooth extractor," Bassett informs the public that he has purchased the right for extracting teeth "perpendiculai" in Baltimore and suburbs. In the *General Advertiser* of Philadelphia from August 2 to September 18, 1793, a M^r Liber, another French "Chirurgien-dentist" announces himself. He remained in that city, according to the *Directory*, until 1799

Of all the men we have so far considered, none prove as interesting or as colorful as our next, Charles Edward Whitlock, at times also known as Whitelock. Before considering his place in dentistry, let us read of his life as an actor, for like other dental practitioners of that same period, he became famous for his performances on the stage. Whitlock belonged to that dental group of early actors such as Jean Baptiste, the son of Pierre Fauchard, whose name is more widely known (as "de Grandmesnil") in France than that of his famous father, another being François J. Talma, the famous French tragedian of his day

Whitlock's introduction to America was somewhat informal

"Extract of a letter from a very respectable gentleman at Annapolis, to his friend in this City, dated 26th January

"Since you left us we have had an opportunity of seeing all the qualities of Wignell's company. They have afforded us much satisfaction, and I have no doubt they will do the same at Philadelphia, for which place, they are on the point of departing

"Several of the gentlemen are good scholars, and appear well bred. Mr. Whitlock, is much of a gentleman, and a very just Actor—he is besides a complete Dentist, which he practiced in England many years—I have seen many of his operations, which he performs with a delicate hand and much judgment—and as he means to pursue that business in Philadelphia, I hope he will meet with encouragement, as he appears a very worthy character"

Gazette of the United States (Philadelphia) February 1, 1794

Mr. and Mrs. Charles Edward Whitlock were among the company engaged by Wignell when he opened his new theatre in Philadelphia. The lady was a sister of Mrs. Siddons, the famous English and American actress and a daughter of Roger Kemble. Mr. Whitlock, past the meridian of life, is described as being "in appearance and manner every inch a gentleman"²⁸. He occasionally portrayed comic characters but met with more success in playing the parts of fathers, serious and tragic. He had been long on the English provincial stage, and was a partner in management with the afterwards famous Munden who at that time was on what is called the circuit of the northern towns in England. To this troop belonged Hodgkinson, so celebrated in the early theatrical annals of America. In the summer of 1796 Whitlock with his wife performed in Boston at the Federal Street Theatre. They afterwards went to Charleston, S. C., New York City, and again in the autumn of 1798 returned to Boston in Hodgkinson's troop. Taking over the management of the Boston Theatre, Whitlock opened it on October 27, 1800, but after a loss of \$4,000 relinquished the business. During the winter of 1802 we find him and his wife performing in New York and the next year in Charleston, S. C. Subsequently he "returned home (England) with his talented wife, and passed the evening of his life in quiet competency, more owing to the energy of her character than his own"²⁹.

While performing, it appears he continued to practice his profession, first in 1793 in Annapolis and then in the various cities, as above mentioned. In the *Aurora* (Philadelphia) of December 14, and in *General Advertiser* the 13th, 1794, there appeared this notice

"Whitlock, Dentist, No. 103 Mulberry, near Third-street, respectfully informs the ladies and Gentlemen of Philadelphia and its environs that he continues to perform every operation on the teeth with the utmost care and attention, thus publicly pays his grateful acknowledgments for the very great encouragement he has already received, and hopes for a continuance of their favours

"A parcel of letters and other papers, addressed to Mr Whitlock, were lost about seven weeks ago within the city. He will consider himself very much obliged to anyone who will forward them to him, or will cheerfully pay a handsome gratuity, if it will be accepted. They can be of no use to any but himself."

In the *Federal Intelligence and Baltimore Daily Gazette* there appeared on August 15, 1795, an advertisement written entirely in French, of which an English translation is to be found in the *Baltimore Telegraph* for October 21, 1795. Whitlock

"Respectfully informs the Ladies and Gentlemen of Baltimore and its vicinity that he continues to perform all operations on the Teeth - Supplies the deficiencies of nature with Artificial or Real Teeth, in all the various modes of fixing. Cleans, Files, regulates, extracts, and fills decayed Teeth with gold or lead, &c &c. He waits upon Ladies Gentlemen at their houses. For the information of those who mean to honour him he has affixed his charge of common operations within the Town and Point

	Dollars
Scaling and Cleaning	5
Artificial Teeth, with Enamel, per tooth	5
Do in Gold sockets or screws	7
Natural Teeth with ligatures	7
Do on Gold Ivory sockets, or Gold screws	10
Filing and Cutting away decay	1
Filling with gold	2
Do with Lead	2
Extracting (to the families who employ him as Dentist)	1
Do where not employed	2
Tooth Powder of his own preparing	1
Brushes, best London Manufacture	25 cents
Regulating, etc, according to the operation "	

This same announcement again appeared on July 28, 1796, in the above-mentioned Baltimore newspaper, and repeated in Philadelphia, dated June 14, 1797 (*Federal Gazette*). From the above announcement we find that he was a practitioner of more than average ability, performing all of the services then constituting the practice of dentistry, even the regulating of teeth. His scale of prices is indeed interesting. In Philadelphia, Whitlock treated his patients "at 68 North 8th Street, next to the Black Horse Tavern, on the Frankford Road."

On July 19, 1798 (*Federal Gazette*) "he informs his friends and the public that he continues to exercise the above (dentist) profession in all its branches and that the three story brick house is to let immediate possession may be had." Whitlock must have left Philadelphia then, and we next find him in Boston, for in the *Columbian Centinel* of April 4, 1799, there appeared

"Chas. Edward Whitlock, dentist, respectfully acquaints the public that his engagement at the theatre having expired, he is now at liberty to offer his services in the above profession, to which he has been regularly bred, he will be happy to receive their commands

during his short stay in town, at 51 Marlboro street Mr Whitlock hopes those ladies and gentlemen, who have already honored him, will pardon his seeming neglect of their commands, as sickness, severe weather and necessary attention to the theatre have precluded every possibility of attendance "

We find that Whitlock was still in practice and performing in Baltimore in 1802 (*Republican or Anti-Democrat* April 26) In a footnote he remarks that he would prefer attending Ladies and Gentlemen at their own houses or lodgings and a "note or message, at Mr Hanna's No 3 South Gay Street, or at the Box office of the New-Theatre" would reach him

Horace H Hayden (1769-1811) said of him "'Dr Whitlock,' or as so often spelt 'Whitelock' was a gentleman of polite address and accomplished manner"²⁷ He must have built up a large practice among the elite of Philadelphia and elsewhere, for among his patients were some of Washington's own family In the *Historical Society of Pennsylvania* there are the account books of Washington for 1794 to March 25, 1797, in which one finds the following entry

August 26, 1794—Paid M Whitlock for filing Mrs E Custis'	
teeth	\$12 00

On April 17, 1799, the following letter was sent to Mr Whitelock

"Mrs Washington will be much obliged to Mr Whitelock to make for her a set of teeth—to make her something bigger and thicker in the front and a some matter longer

"She will be very glad if he will do them soon, as those she has it almost broke [sic]" (See Fig 128)

This was the same period during which Mrs Washington was awaiting Fendall's denture, and as Whitlock was in Boston at the time, her request could not be granted For that reason, we are inclined to believe, she might have visited John Greenwood in New York This will be explained at the end of Chapter XVI

An unusual and interesting dental notice is to be found in the *Philadelphia General Advertiser* for 1791 inserted by a Louis Perry, Surgeon and Dentist So far it has not heretofore appeared in our literature, a fact indeed strange, for with the qualifications and experience mentioned he should have been one of the outstanding practitioners of the period Yet all we have been able to ascertain about him is that for three months, July to October, he resided at 35 South Front Street, Philadelphia

Perry, previous to his arrival in Philadelphia, practiced "in different parts of Europe" where he "acquired an extensive knowledge of both professions" He mentions that "he had resided upwards of ten years" in Portugal and there had "acquire (d) from the Royal

Protomedical Board, a certificate of his professional abilities with full liberty to practice the same in all then branches" "He engages principally to afford every assistance in the Dentistial way," by "extracting the tartar which separates the gums from the teeth fastening in the gums such teeth as might have become loose" and concludes with "the poor will be assisted gratis"

Another Frenchman, Frederick Raymond, used the *Maryland Journal*, etc, beginning with July 10 up to September 18, 1792, to announce that he "a grege aux principales Faecultes de Medecin et de Chirurgie d'Europe, arrive depuis peu de L'Isle St Domingue," and had the honor of offering his services as a "Dentiste" and "Oculiste" to the public of Baltimore Raymond's advertisement appears first in French, then underneath is transcribed into English On August 10 it appeared in French August 21 in English, and on August 24, the advertisement was Bassett's, August 31 was Raymond's in English, September 7 Bassett's, 11 page 1, Col 2, Raymond's in English, below that of Bassett's He had assigned a greater space than the other and probably was given a preferable place in the paper

In September of 1793 we again find Robert Wooffendale had returned from London, and entered into the general practice of dentistry in New York, after an absence of twenty-five years He retired in 1797, leaving his practice to his son, John, and died in 1828

According to the *Federal Gazette* of January 7, 1794, Lewis Gillhams, a dentist, was located at No 26 Arch-Street, Philadelphia, "who from experience and great success in practice in different capitals of Europe and America, had acquired an extensive knowledge in the most useful operations on the human teeth and gums" Apparently he had been practicing in this country prior to this announcement That he must have built a successful practice is evident, for his name continued to appear in the Philadelphia Directory until 1818, a period of some twenty-five years Upon his retirement his son, Jacob, took over at the same address, 35 Arch Street

In the same city, beginning with a notice on March 5, 1794 (*Federal Gazette*), we find mention of another French dentist, a Le Breton, who evidently had practiced in America at an earlier date Breton states that he had been "a pupil of M Lasseeteur physician from Paris, and M Dubois, surgeon-dentist and formerly dentist to the King and Royal family of France, a member of the *College and Academy of Surgeons* of Paris" He must have practiced in Philadelphia before that date for he continued

[he] "would conceive himself unworthy of the confidence shewn him when he was last in this city, if he did not give public notice of his return from France and again offer his services Every day, from half after seven till half after eight in the morning he is ready to give his advice and assistance to the poor, gratis

"He has to dispose of everything which relates to the teeth, viz teeth of a mineral composition, approved by the academies of Paris, and for which Mr Dubois [de Chemant] obtained a patent in England. Natural teeth, perfectly beautiful, also artificial teeth, to which M. Le Bretton gives the enamel and polish necessary to imitate real teeth. He makes them in any number together, from one to a whole set. He has for sale the best dentifrices, and approved elixirs for cleansing, whitening and preserving the teeth, also brushes, sponges, &c &c."

This advertisement is highly important, for from it we learn that "mineral teeth" made by Dubois [de Chemant] were actually in use in this country at a much earlier date than heretofore reported. Though the statement of a new mineral composition for teeth appears in many of the advertisements, historians have discounted the fact because a satisfactory composition was not found until Fonzi's in 1806. His advertisement again appeared on May 8, giving his address as 135 Chestnut above Fourth Street. Other notices were published (*General Advertiser*) on November 7 and on September 19, 1795 (*Gazette of the United States*). *The Federal Gazette* for September 3, 1798 announced his death.

George Similier and Philip Lazarus, Surgeons and Dentists, made the following announcement to the readers of the *Philadelphia Federal Gazette* March 23, 1796.

"Having entered into partnership, beg leave to inform the public, that they will undertake any cures coming under the notice of a surgeon, and they likewise offer their advice and assistance in those disagreeable and obnoxious disorders incident to that beautiful part of the human body, the mouth.

"1 They remove all damaged, broken and rotten teeth, with the greatest expedition and with very little pain.

"2 They put in artificial teeth of a newly invented composition in lieu of those that are missing, singly as well as whole rows. These artificial teeth look exactly like natural teeth, and are of equal use.

"3 They clean all black teeth, if ever so much affected and covered with tartar, inside and outside, with a very delicate instrument, and give them their glaze, without injuring them in the least.

"4 They have an excellent tincture for the teeth, which not only preserves the gums, but likewise heals the same perfectly if attacked by the scurvy, or otherwise injured, and also fastens those teeth that may happen to loose.

"5 They have also another mixture, which in case of a mortification or gangrene, occasioned by rotten teeth, prevents the further progress of this evil. It likewise takes away the disagreeable smell occasioned by hollow teeth, and frequently cures the most severe tooth-ach.

"6 An excellent powder which cleans teeth in the neatest manner, and gives them their full glaze again.

"7 An opiate to preserve the enamel of the teeth in its pristine beauty.

"8 An antiscorbutic tincture for drying up all little ulcers that will frequently break out on the gums and lips

"9 Persons wishing to preserve hollow teeth, by burning them, and those afflicted with fistulas and other disorders incident to the teeth, will find assistance and effectual relief by applying to them

"Apply at No 207, Race or Sanssouci street

"NB Proper directions will be given for the different tinctures for the use thereof

"Messrs Simulier and Lazarus [name changed later to Larin], intending to leave the city in about three weeks' time, those ladies and gentlemen who may be in want of their assistance will be pleased to make early applications "

They seem to have dissolved the partnership, Simulier leaving Philadelphia and settling in New York, for on August 8, though in Boston, the *Independent Chronicle* and the *Universal Advertiser* provided the information that he was established in New York and intended to reside there, after a stay in Boston of three months. Meanwhile Lazarus remained in Philadelphia, dividing his time between that city and Baltimore.

There is another notice of Lazarus under the name of Larus, dated January 11, 1797 (*Federal Gazette*). In May (17th), 1798 he visited Richmond, Va., and apparently remained there, for on December 4, 1805, the *Virginia Gazette* carried an announcement of his marriage to a Miss Polly Fraser of New Kent County.

On March 22, 1796 the *Baltimore Advertiser* contained the following notice:

"Dr Beziers who has practiced his profession for a number of years in Europe, and for some time past in conjunction with M Gardette, dentist, in Philadelphia, respectfully offers his services to the public in the several branches of the art of the Dentist "

On May 19 the *Virginia Gazette and Petersburg Intelligence* repeated this same notice, while the *Charleston City Gazette & Advertiser* for October 10 had an announcement of a Dr Bessieres, undoubtedly that gentleman.

Meanwhile, a Samuel H Flagg, dentist, (*South Carolina Gazette*, July 2, 1796) "informed the ladies and gentlemen of Charleston that he continues to practice in the various arts of his profession." A Mr Tessie, Surgeon and dentist was also in Charleston "plugging and cleaning teeth" (*City Gazette and Daily Advertiser*, April 1, 1796).

That an interest had already been created in the so-called dentistry can be judged when we find, as early as 1797, the granting of the first patent in the United States for an improvement in dentistry to Thomas Bruff, Senior, of Maryland (June 28). It is particularly curious as his name has never appeared in any of our numerous dental publications.

What is even more remarkable is that he must have been a dentist of some ability, for James Gardette's name appears as one of the witnesses. The patent was for a "perpendicular extractor." Bruff describes the patent as follows:

"This instrument has a double claw with a joint near the middle, and a spring to draw them together when set on a tooth. It has a fulcrum with two branches, one to answer as a handle for the left hand to keep it on the adjacent teeth, the other having a hook on the upper part of the end answers as a guide and support, to the lever which passes through it through the staple at the extreme end and the point through the eye of the claw under the fulcrum is a crooked cap. The lever has a handle nearly like the common key instrument. It has a common blade near the extreme end to raise it perpendicular from the fulcrum, when turned by the handle and by a turn on the back of the blade brings out the tooth in a perpendicular direction."

T BRUFF Sr
TOOTH EXTRACTOR

Patented June 28 1797

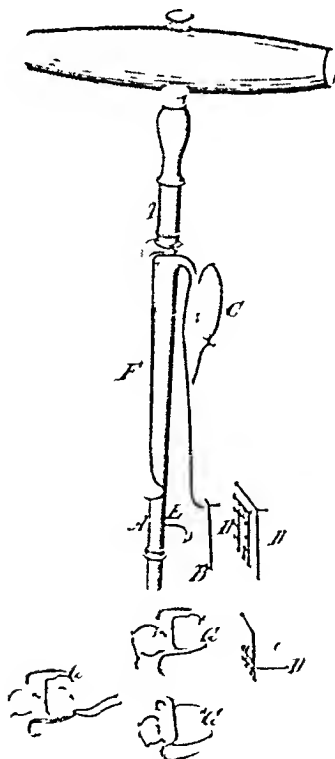


Fig 24 —Patent number 245, the first to be issued to a dentist in this country Thomas Bruff, Sr, June 28, 1797

It would seem that Bluff had little confidence in the "extractor" for as already related under Bassett he had sold the rights to its use in Baltimore. On March 24, 1800 (*Maryland Journal*), he informs the public that all cases of extracting, except that requiring the use of the patented forceps, "he is fully prepared to perform the operation with the greatest care." We wonder how many cases he found that would require the use of his own invention for in a few issues of the Philadelphia *Aurora* 1797 we find the following after describing his services: "Having obviated in a great degree the Perpendicular Instrument, he assures those who have carious or painful teeth, that the pain of this mode of extracting is not to be regarded by the most delicate person."

An interesting combination of activities showing that even at this early date dentists were interested in more than their profession, is to be found in Greenleaf's (New York) *New Daily Advertiser* of February 27, 1798

"To the Curious in General

"Mr Child Surgeon Dentist, from London, has an excellent apparatus which has given satisfaction to many thousands of spectators. It consists of two large Telescopes, one of 16 feet in length, and the other a large reflecting Telescope, made by the celebrated Mr Short. These instruments will be exhibited for Planetary Observations, by the great magnifying power they show the planets to be floating globes like our world, the land and water, whereby all the philosophers have gained their superior knowledge, plainly appear

"Having prepared an observatory at his Porter-House, No 357, Water street, near the new slip, he will exhibit every night when the weather is clear, and has the pleasure to inform the public, that the much admired planet Jupiter, which by the learned is computed to a thousand times larger than our world, with his four moons or satellites revolving around him, may be seen

"NB Extracts decayed teeth and different stumps which many others of the profession have failed in, and artificial teeth, from one to an entire set, both for use and beauty, and all complaints in the teeth removed."

Godfrey Welser, Surgeon-Dentist and Bleeder, in the *Federal Gazette*, August 19, 1797, after enumerating the various fields in which he is qualified, closed with the following certificate

"This is to certify, that Godfrey Welser has attended a regular course of our lectures on anatomy, surgery, &c, with diligence and care

William Shippen,
C Wister [Wistar]"

John Wooffendale, the eldest son of Robert Wooffendale, returned from England with his mother in September of 1793, but did not begin

practice until his father retired in 1797. We first hear of him in the *Minerva and Mercantile Evening Advertiser* for March 13, 1797. He resided then at 131 Pearl Street and the advertisement was scheduled to appear on Monday and Thursday. The notice was repeated in the *New York Commercial Advertiser* for October 11, 1797 (Fig 25) and February 15, 1798. On May 3

J. Wooffendale,
DENTIST, from LONDON,

RESPECTFULLY informs his friends and the public, he continues to perform every operation on the teeth, and from his practice and experience in his profession in London, he is enabled to say, in a manner not to be surpassed, if equalled by any other person in America for delicacy, neatness and permanency. He fixes artificial teeth in, superior to any he has yet seen done in this country, and the most curious eye cannot, in most cases, discover natural Teeth fixed in by him, from those growing in the head. At many people have been deceived by false reports, respecting his fees, he begs leave to mention, he charges for fixing in Teeth, from two to ten dollars, each tooth, two dollars for cleaning the teeth, and one dollar for extracting.

His Abstergent Lotion, for the Scurvy in the gums, and his Dentifrice for cleaning and preserving the teeth, may be had at his lodgings, No. 131, Pearl-Street, two doors from the New-York Bank, where also may be had, his Brushes for the teeth and gums.

October 10. Tues & Fri 1m

Fig 25 —From the *New York Commercial Advertiser*, October 11, 1797, and February 15, 1798

“J. Wooffendale,

DENTIST, from LONDON

“RESPECTFULLY informs his friends and the public, he continues to perform every operation upon the TEETH, &c. He fixes in Natural and Artificial Teeth, from one to a complete set, without pain or inconvenience. His abstergent lotion for the Scurvy in the gums, and his dentifrice for cleaning and preserving the teeth, may be had at his lodgings, No. 131 Pearl street, two doors from the New York Bank, where also may be had his brushes for the teeth and gums

“NB He has just received a supply of beautiful Natural Teeth”

On July 16, 1799, a third notice, reproduced in Fig 26, differed from the others

John Wooffendale in January of 1807 married Miss Catharine Castelli, and in May he resided at 84 Broadway. He later moved to 27 Partition Street (Fulton) and the following year to 2 Courtland Street. He was still in active practice in New York in 1850.

J WOFFENDALE,
DENTIST FROM LONDON
 IMPRESSED with a grateful sense of the distinguished pre-eminence in the line of his profession, he has received during his residence in this city, returns his thanks to his friends and the public at large for their kind patronage, and informs them he continues to perform every operation relative to the Teeth, &c—he likewise fixes in natural and artificial teeth, from a single one to a complete set, without pain or inconvenience. He recommends his Abstergent Lotion, which has ever been found a most efficacious remedy for the scurvy in the gums—and also his dentulrice, for cleansing and preserving teeth. Both may be had at his lodgings only, No 154 Broadway, near the corner of Liberty-street
 July 16 1m

Fig 26—Announcement of John Wooffendale, the son of Robert Wooffendale (New York) Commercial Advertiser, July 16 1799

In the *Aurora* of Philadelphia, September 5, 1797, there is to be found the following

“Mr Chauvet, Surgeon Dentist from Paris, well known in that city as well as several large towns, particularly at Havre de Grace, where he has practiced for Ten Years, with the greatest success, offers his services to the inhabitants of this city. He extracts decayed Teeth and Stumps, with the greatest ease, cleanses those that are sound, whitens and separates them, makes them even and fills them. He transplants Natural teeth or furnishes Artificial Ones, which are as useful as those which nature gave, are an exact imitation in point of colour and are Incorruptible, and of course, void of all disagreeable smell. He directs the growth of teeth in children, so as to secure to them a good set. He prepares an Antiseorbatic Elixir, excellent as a preservative of the teeth and gums, which are kept by the use of it fresh and clean. He keeps excellent Teeth Powders, and Essences to calm the toothache. He prepares a cosmetic known to be excellent to render the complexion fair, and free it from freckles and pimples, it also preserves the skin against chapping. He has also made the diseases of the Eyes his particular study, has practiced in this line with much success, and has excellent Specifics for them.”

The next year there appeared in the *Federal Gazette* February 9, 1798, the names of Duvivier, “a surgeon of the faculty of Paris, [who] has the honor of offering his useful and necessary services to the public of Philadelphia,” and Dubuisson. The latter was in Boston in 1800, but returned to the Quaker City where he was still practicing in 1818.

In 1802 in Baltimore there was published the second treatise by a dentist in this country, B T Longbotham. It is unfortunate that, except for information offered in his book, no record of his life has been obtained other than that he was “a pupil of Mr Whitewood of London” who likewise happened to be the preceptor to Mr John Waite, the father of Mr George Waite.

One can be certain, however, that he was in dental practice in America prior to 1800, and though this historical presentation ceases with that date, we feel therefore that his work should be part of the period. How many dentists were here whose names never reached the newspapers, one cannot say, but there is little doubt in our minds that there were others, and if they be judged by Longbothom's writings, they were the equal of those so far mentioned in this history.

Longbothom's "*Treatise on Dentistry*" differed from Skinner's published the previous year, the latter began his practice in America in 1788 and wrote his first treatise prior to 1794, however, the work was not copyrighted until 1801, making it the first dental book written and published here. A more detailed account will be found under Chapter XVI.

T R E A T I S E
ON
D E N T I S T R Y
EXPLAINING THE
D I S E A S E S
OF THE
T E E T H AND G U M S,
WITH THE MOST EFFECTUAL MEANS OF PRE-
VENTION AND CURE.
TO WHICH IS ADDED,
D E N T I T I O N,
WITH RULES TO BE OBSERVED DURING THAT INTER-
ESTING PERIOD.

B Y B T LONGBOTHOM SURGEON DENTIST

BALTIMORE

PRINTED BY PRENTISS AND COLE

1801

Fig. 27 — The second dental book published in the United States. B. T. Longbothom.

While Longbothom's work was intended to educate the general public along oral hygiene principles, it was of even greater importance

to the dentists of that period, and it conveys to us a rather general idea of the knowledge then possessed by those practicing dentistry in this country. From it and Skinner's *Treatise*, we can observe accurately just how far the profession had progressed.

We introduce the book, first by an advertisement that appeared in the *Federal Gazette and Baltimore Advertiser* for March 5, 1802:

"The author of the above treatise (B. T. Longbotham, *Treatise on Dentistry*), encouraged by the approbation he has received, and the advice of many medical and other respectable characters to whom he has the honor of being known, and who assured him such a work would meet general approbation and success, presumed thus to offer, what he trusts will, by elucidating its practice, place the art he possesses on a more eligible footing than it has hitherto sustained—the tooth-drawing mechanic and barber dentist has fatally erected a standard whereby the ignorant form their notions, and unthinkingly annex to tooth-drawing and tooth-scraping all that is requisite to be known, and although the well informed are aware that to preserve, regulate and remove teeth, is of import and concern to almost every individual in existence—yet to trace their diseases, the cause of their deficiencies or the injury they do the system by generating putrid matter, has, it is presumed, formed no part of their consideration."

Longbotham, in his "Preface" begins:

"To point out an art useful to society, is a duty incumbent on every individual capable of so doing, and the only excuse probably for its omission, is when the misgiving mind imbibes a fear, that it may be imputed solely to a motive of self-interest. Under such an idea, nothing can tend more to reconcile to us the bringing of it forward, than a persuasion that we can convince the public, the advantages derived therefrom, 'if not wholly theirs' are at least reciprocal, in this point of view, if we succeed, every unpleasant sensation is removed—Impressed with such a hope, have I undertaken the following treatise, not that I am ambitious of being crowned by the applause of successful authorship, or set up for the smallest pretensions to literary fame, the experience I have obtained in my profession, communicated in a plain intelligible manner, is all I purpose, my readers therefore I hope will rather attend to matter, than manner, and seeing its utility, not expect embellishments, of which was I capable, I should not avail myself."

"In endeavoring to perfect myself as a dentist, I have employed some years, and (if a liberal practice does not much mislead me) I may assert not unsuccessfully, but as even in the most extensive field of practice, there will ever remain a few, uninformed of the good effects which experience has made known to others, I trust I shall not be condemned for attempting to raise in estimation, an art, more beneficial in this climate, than most others."

"Though the subject is in some measure new here, I yet hope for every reasonable indulgence, having received the general approbation of the most eminent professors in surgery and medicine, who have not hesitated to assert its great utility, and the propriety of my

treatment, which with that candour (the result of conscious integrity) has been laid open to the strictest investigation

"The word Dentist, has been so infamously abused by ignorant pretenders, and is in general so indifferently understood, that I cannot forbear giving what I conceive to be its original meaning, viz the profession of one who undertakes, and is capable not only of cleaning, extracting, replacing by transplantation and making artificial teeth, but can also from his knowledge in Dentistry, preserve those that remain in good condition, prevent in a very great degree, those that are loose, or in a decayed state, from being further injured, and can guard against the several Diseases, to which the Teeth, Gums, and Mouth are liable, a knowledge none but those regularly instructed, and who have had a long, and extensive practice, can possibly attain, but which is absolutely necessary, to complete the character of a Surgeon Dentist (Itakes not in the original)

"Little it is presumed, need be said to induce everyone to pay that attention to their teeth, which such useful ornaments require, particularly that part of the creation, in whom as a contemporary has observed "Beauty appears to have fixed her peculiar seat," I shall therefore without entering into anatomical disquisitions or Latin phrases (which I think more calculated for the faculty than the public) briefly explain from whence those complaints (so generally incident to all), arise, and offer what I ever found to be a lasting, speedy and effectual remedy "

He continues

"Of Teeth in General"

"GRINDERS Here then, until I again take it up in Dentition, shall I leave the physiology of the teeth, promising as before hinted, that the intention of this is simply to render the reader adequate to the comprehension of the practice hereafter laid down, and to judge the rationality with which it is prescribed, had I ever met with anything equally diffuse in as small a compass and general use, assuredly I should never have made the attempt But let no one suppose for an instant, that I imagine what I am herein about to communicate can tend to form a regular Surgeon Dentist, such a character will find some useful hints, but to complete him, not anything can, but a steady attention to the anatomy of the parts, lectures thereupon from able professors, and an extensive practice varied by continuance—A few years only have elapsed since Dentistry became a study, much has been acquired, but more also remains to be so, with the advantages of those before me, as universal a connection with medical practitioners, or perhaps greater than anyone in the same line, was ever indulged with, aided by a long, and extensive practice, I am free to confess myself young in the profession, and ready to be instructed by anyone, who can and will so far honor me Nor am I as I before observed, induced to this little publication, but as an incumbent duty and proof of my gratitude to the many, who are endeared to me by a liberality experienced by no other dentist in the same island *

* It is necessary to observe that the Author commenced this Publication for the Island of Jamaica where he practiced eight years

What follows should prove of more than passing interest, for it clearly demonstrates that there were during this period eminently competent dentists, whose ethical standards were high, who had the interest of the patient at heart, and who even at this early date endeavored to protect the public from similar abuses common to dental practice as late as 1930. It is to Longbothom's credit that he was able to recognize what was transpiring and therefore endeavored to warn the public against potentially dangerous, inferior, secret formulated products and that most of the toothpowders and mouthwashes did not merit the claims made for them.

"IMPROPER APPLICATIONS

"No dentist but reviles these enemies to a good set of teeth, while those who are possessed of them, from a worthy emulation apply too frequently to their aid. I allude to those vile nostrums, which under the title of 'Dentifrices,' are to be found in every quarter of the globe, and whose properties instead of answering the purposes promised, almost ever bring disappointment, not unfrequently attended by the most dreadful consequences. Will it not strike every thinking person, that a liquid, or powder, containing acrimony in its composition sufficient to dissolve a concreted substance, like that on the teeth called tatar, will also destroy the enamel, which, when even slightly injured, too often exposes the teeth to premature decay.

"It would be needless almost to mention a more convincing proof, of the manner in which these nostrums act, than by reminding the consumer of the nervous sensation arising from their use, by setting (what is termed) the teeth on edge, or recalling to their view, the timidity with which they are recommended even by their inventors, whose very labels indicate their evil tendency, by requesting they may be used only so often, and directing that the mouth be immediately washed from any remaining particle.

"Powders of this injurious description mostly consist of pumice stone, sandiver glass gail, emery, allum, vitriolated-tartar, cream of tartar, borax, salamoniac, bole-armoniac unprepared, cuttle-fish-bone, calcined hartshorn, burnt bread, gum, myrrh, bark, tobacco ashes, and various other things equally destructive. These are colored by rose-pink, sanguis draconis, cochineal, alkannet root, &c, and their taste rendered deceptive by camphorated spirit.

"As a more favourable opportunity may not offer for my answering a question, not unfrequently asked me, viz—Why when so strenuous an advocate against the use of powders, opiates and lotions, I myself, have them to dispose of? I beg leave to reply, that to either, as they ought to be prepared, I am not averse, were persons who are in the habit of using these articles, acquainted with their composition, and perfect judges of their good or bad qualities, and governed themselves accordingly, or were they conversant with the character of those who prepare and offer them for sale, and assured they merited the confidence reposed, I should no longer object to their use in moderation.

"For my own it is a duty incumbent on me, and which I execute with pleasure, to say 'tis no such arcanum, it cures not so infallibly As reasonable would it be to expect, one medicine to cure the whole routine of animal disorders, as that one lotion or powder should the variety the mouth (the most delicate of the senses) is subject to I take upon me to aver no medicine is capable of so doing, nor is it compatible with common sense to expect it The best and greatest merit a dentist can claim, is, to keep his preparations as free from acrimonious mixtures as possible, and to offer no powder for sale, of a harder substance than the body it is intended to remove To be convinced how injurious such salines or acids are, let a tooth accustomed to be cleaned therewith, be viewed through a microscope, when innumerable perforations will proclaim the depredations made

"Would those who have an objection to permit a dentist to inspect their mouth, use only a brush from time to time, chosen for its hardness, it would often be attended with the happiest effect, and let all acids, alcalies, &c, be banished the toilet, as prejudicial in the extreme The brush should be used in a transverse direction (direct up and down), so as to carry with it the appearance of brushing the gums from the teeth, which from their vascular nature, will daily become more firm, and free from scorbutic affections "

"ARTIFICIAL TEETH"

"These to have in perfection is business for a Dentist, but as many have succeeded in the attempt of making them, I know no objection to others giving it a trial, the best way to which is, impressing of wax, so as to form and fit the vacated space At first this will carry an awkward appearance, but by repeated pairings become more shapeable and resembling the thing wanted, and may serve as a model, for yourself to fashion one more substantial, to send to an operator or to wear temporary The loss of Teeth is not only a deformity to view, but detrimental to speech, and tho' many to avoid the imputation of vanity decline the use of artificial ones, I am persuaded it can only be adduced to not reflecting on their utility Without insisting upon that happy expression of countenance which at all times renders us acceptable to our own species, and which is much promoted by the use of artificial Teeth They by pressure keep those on each side from approximating, as they also prevent that with which they come in contact, from leaving its place, which from want of an opponent it often does Real Teeth placed on pivots or springs excell any other, but the most natural substitute, and which keeps its colour, is the sea-horses Tooth, best and most innocently secured by silk twist, sea-weed or white thread waxed Many use gold-wire, as I do likewise, but seldom, unless particularly requested Whole sets require springs of a peculiar form, although I once saw a complete and entire set adhere solely by suction "

It is of interest to note that here is to be found the earliest printed statement relating to the principle of atmospheric pressure in denture retention Until now the remarks of Emile *Gardette* have usually been cited in crediting his father as the discoverer of this idea He writes:

"It is a well authenticated fact that Mr Gardette successfully maintained sets of artificial teeth for the upper jaw, on the principles of atmospheric pressure as early as 1800." Is it possible that the case which Longbothom relates might have been Gardette's, or was it the case of another that both saw?

We have cited numerous instances of denouements and damage done by the qualified practitioners but none as severe as Longbothom's closing remarks.

'To those worthy Gentlemen all namedly nomenclated Quack-Doctors, Tooth drawing Barbers, Nostriani Managers, and Itinerant Mountebanks

I had just finished this Treatise when I received an application to attend a Lady whose upper jaw had been considerably injured by one of the greatest empirics of whom your fraternity can boast, and was thus reminded of a duty which has only lost its weight, I should presume by the luckless manner in which it has hitherto been performed. Many no doubt are the pages predecessors have lengthened out hereby, and conspicuous are the pages where an adage would apply, but waving that on my other liberal observation, without even promising to a generous public, that what said to you are hints to them, or vulgarly abusing merits and ingenuity, to which I am infinitely a debtor, suffer me in the language of obligation to state the kindnesses received and acknowledge with gratitude incumbent, the information your dexterity and skill has enabled me to require. Various and intelligent has been the practice you have afforded, and ad infinitum I hope will be your labours to benefit society in general. The vile mundoes, that you break teeth, fracture the parts, cause exfoliations, dangerous hemorrhages, deep seated abscesses, or now and then a locked jaw, as instanced by Doctor Skinner, of New York, in his treatise, page 19. I trust and believe an enlightened community will pay no attention thereto, but will permit you long to reign the unmolested practitioners of mischief through your lives, giving to regular professors that knowledge so necessary to be obtained, and which denied by you can proceed from chance alone. In short, to real professors of the art, you are of the same utility dead subjects are to the anatomist, and mistaken is he who sees you in any other light. Malice and envy in vain shall shoot their shafts, while oeconomus shall find the charges are so moderate.

"May you prosper in your undertakings, and may you never want a patient, until, by some unlucky well-meant, though misconceived jerk, twist, or otherwise injudicious accident, you proclaim your operations not performed *secundum artem*."

Longbothom apparently settled in Charleston, South Carolina, where he was still in practice in 1815. In February of that year he visited Lexington, Kentucky, according to the *Kentucky Gazette*.

"B. T. Longbotham, Surgeon Dentist, of Charleston, South Carolina, is at Mr Postlewaite's. Preserves teeth by cleansing, or if requisite filing between them, plugs those that are hollow or decayed and so renders them lastingly useful. Cures scurvy, extracts teeth

that cannot be saved and when teeth are deficient, supplies them by real or artificial "

The following are the names of a few of the practitioners who practiced dentistry in the Colonies, many of whom were here earlier than the dates given 1800, Florence in Virginia, Edward Baker, Philadelphia, Hailer, Philadelphia, Horace Hayden, Baltimore 1800, Hudson, Philadelphia, and Longbothom, Baltimore 1804, J B Porter, Hartford 1805, William Bradley, Hartford, and T Parson, Boston, 1802, and Baltimore 1806, J and William Parkhurst, New York, and John L Teller, Baltimore 1808, Sanders, Philadelphia, I J Comyn, Baltimore, and Fay of New York

Thus we have recorded the names and activities of our pioneer dentists of the period There are a few, however, whose record is more detailed These will be considered in individual chapters While it might be fitting at this time to summarize the period, we have left this for the end and included it in the Epilogue

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CHAPTER IV

JOHN BAKER, M D (1732?-1796)

Pioneer American Colonial Dentist and
Benefactor of American Free Education

CONSIDERABLE uncertainty exists as to the identity of the individual who first began the practice of dentistry in America after James Mills, James Reading and William Whitebread. Was it John Baker or Robert Wooffendale?

We have the exact date of Wooffendale's arrival in New York, October 30, 1766, and his first advertisement that of November 13, 1766, in the *New York Weekly Journal*¹ (Fig. 9). The first authentic information relative to John Baker, the earliest medically-trained dentist to practice dentistry in America, is his advertisement, published in the *Boston Evening Post* of January 22, 1767 (Fig. 8), this announcement, we find is two months after that of Wooffendale. However, from the evidence now at our disposal and presented in the following paragraph, we have come to the conclusion that it was Baker who first began the practice of dentistry in America, some years prior to Wooffendale's arrival.

Just where and when John Baker was born, still remains a mystery, though on his tombstone it states "in England." We have reason to believe, however, that he spent his youth in Cork, Ireland, and from his will, we find that he came directly from Europe to the Island of Jamaica and thence to Boston. From this document and newspaper advertisements one learns that he must have practiced previously, and held property in² "Great Britain, Holland, Ireland, France, Island of Jamaica and other principal places in Europe" (Fig. 30).

In his first New York advertisement, *New York Weekly Journal*, April 28, 1768, Baker claims "he has given sufficient proof of his superior judgment in this art, to the _____, also to upward of two thousand persons in the town of Boston." In order to have established such a large practice he surely must have been in Boston for a number of years prior to that date, April 1768, and that this was probably so, will be shown a little later.

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From Baker's first announcement he "begs leave to take this Method of informing the Public, That he shall leave this Place in Twenty Days at farthest," thus again indicating that he had already established a practice in Boston. He likewise desired to "express his gratitude for the Favors he has received and hopes that those who doubted of the Safety of his Art, from its Novelty in this country, are now convinced of its Safety and Usefulness." This surely implies that he was a pioneer in his profession in Boston.

In the *Boston Gazette* for August 16, 1773, there appeared the notice which is reproduced in Fig. 28.

IF JOHN BAKER, Son of Mr.
CHARLES BAKER, late of Cove-Lane, in Cork, in Ireland, who arrived in some Part of America about 10 Years ago, is alive, and will make Application to Mrs. Anne Baker, at Mrs. Smith's, in Broad Street, or Robert Alexander, and Co. in New York, or Mr. James Warden, of Boston, he will hear something much to his Advantage, or if any Person can give Intelligence of the Death of the said John Baker, as above directed, it will be thankfully receiv'd, and all Charges paid.
 Middletown, July 20 1773

Fig. 28 — Inquiry regarding a John Baker, *Boston Gazette*, August 16, 1773

John Baker,
 Surgeon Dentist,
 Departs this Town in Ten Days,
 He begs Leave to return the Public his sincere Thanks for the many obliging favours he has received from them since his Residence in Boston, — Impressed with a grateful Sense of the Notice taken of him he intends returning to this Town again, when, should he unfortunately have failed of Success with any who have obliged him by their Employ, he will gladly renew his Operations gratis — He is rather inclined to mention this, as he is sensible the best Endeavours may often prove ineffectual, from Inattention or Neglect and that from thence the Man and his Profession too are frequently brought into Disrepute.
 His Dentifrice with proper Directions for preserving the Teeth and Gums is to be had at Mrs. Evers' near the Town House at Half a Dollar a Pot — Each Pot is sealed with his Coat of Arms, as in the Margin of the Directions, to prevent Fraud.
 April 23 1767

Fig. 29 — John Baker's first notice in Boston April 23, 30, 1767

If these John Bakers were one and the same, this would indicate that Baker was in Boston at a much earlier date than we have suspected, and as Baker stated that he formerly practised in Ireland, and as the time of his arrival in this country could have been about the same date, this notice might be the basis for further research, rather than a mere coincidence. Information from various sources in Cork and other parts of Ireland has failed to help clear up this point. It is of interest both for the manner in which he expresses his thanks to the public, and for the reason presented for failures he might have had. He further promised to return for a subsequent visit, which he apparently never made. (Fig 29)

The career of John Baker, M.D., is of interest and importance because it was from him that Paul Revere (See Chapter VI), the versatile Boston patriot, derived his knowledge of dental art. Furthermore, there is a record that Isaac Greenwood, the ivory-turner of Boston, also received such instruction from Baker. (Page XX *The Revolutionary Service of John Greenwood* by Isaac J. Greenwood, N. Y. 1926). There is every indication that Josiah Flagg, too, obtained his early dental knowledge from him. (See Chapter XI, also Fendall, Chapter III). We thus find Baker laying the foundation for American dentistry, and he played a valuable part in establishing it.

According to a letter received from a Mr. M. Holland of Cork, Ireland, dated April 19, 1933, Cove-lane was an important locality in the City of Cork in the middle of the seventeenth and early eighteenth centuries. "Here resided ecclesiastics, physicians, lawyers, teachers and middle-class merchants, and in this vicinity were meeting houses used by scientific and literary associations, and a school of Anatomy. The principal Baker families in Cork", he states, "belonged to the '*Society of Friends*,' a sect that avoided public notoriety other than that associated with cultural or humane welfare." If the Bakers lived in Cove-lane, it is reasonable to assume that young members of the family could have availed themselves of the instruction provided by the School of Anatomy in the same lane. From Mr. Holland we are likewise informed that among the students there was "a popular artist by the name of Corbet who gave up art and became a dentist, a profession practised with success by several subsequent generations of the family." Therefore it is possible that Dr. Baker received his medical training at that institution.

Baker did not leave Boston within the time mentioned in this advertisement, for it was not until April of 1768 that he "departed this town." Evidently his practice flourished, and he was kept busy with his professional duties, for this same advertisement continued to appear in the *Massachusetts Gazette & Boston News Letter* from Thursday, January 22 to April 23, and in the *Boston Evening Post* for February 2

On April 23 and 30, 1767 an announcement in the former newspaper warned that he proposed "to depart within the next ten days"

A year later, in April, 1768, (Fig 30), we find that Baker actually did leave Boston to undertake a very active professional life, first in New York, then in Philadelphia, Virginia, Maryland, Rhode Island and other places, until his final return to New York in 1791. A few months later, December 26, 1768, we are informed by Paul Revere³ that he was carrying on Baker's practice in Boston (Fig 10)

JOHN BAKER,
SURGEON DENTIST;
BEGS leave to acquaint the gentry,

That he is now in New York, at Mr John Watsons, in the house wherein Capt Randall lately lived, at t^e corner of Pearl Street, and will wait on them on receiving their commands — He cures the scurvy in the gums, be it ever so bad, first cleans and scales the teeth from that corrosive tartarous gritty substance, which hinders the gums from growing, infects the breath, and is one of the principle causes of the scurvy, and (if not timely prevented) eats away the gums; so that many people's teeth fall out fresh. He fills up with lead or gold those that are hollow, (so as to render them useful) and prevent the air getting into them, which aggravates the pain. He makes artificial teeth, and fixes them with pure gold, so that they will remain fast for many years, and may eat, drink and sleep, with them in their mouths as natural ones, from which they cannot be discovered by the sharpest eye. He disposes teeth or stumps, after the best and easiest method, be they ever so deep sunk into the socket of the gums. He has given sufficient proof of his superior judgment in this art, to the principal nobility, gentry, and others of Great-Britain, France, Ireland and other principal Places in Europe, also to upwards of two thousand persons in the town of Boston.

His Dentific, with proper directions for preserving the teeth and gums, is to be had at his lodgings.

N B Each pot is sealed with his coat of arms, as in the margin of the directions, to prevent fraud.

Fig 30 — Baker's arrival in New York From the *New York Weekly Journal*, April 28, 1768

Baker's first notice in New York (*Journal & General Advertiser*) began on April 28, 1768, and ran until August. Thus his stay here was very brief. In this advertisement, however, Baker showed that his ideas relating to the practice of dentistry had progressed considerably, for he now covered a much greater field. We find in it the first record of the use of gold for filling teeth in this country, which antedates Flagg's notice (Fig 74) by some seventeen years⁴. Until now, Flagg has been given credit for this innovation. Baker also recognized periodontal conditions as due to a "corrosive tartarous gritty substance, which hinders the gums from growing and is one of the causes, if the teeth are not scaled, for the gums receding and the teeth falling out"

On July 7, 1768, in the *New York Journal & General Advertiser*, Baker again notified the public of his intention to leave in about ten days, and as no further advertisement appeared, he must have left about that time

Just where Baker spent the years between 1768 and 1771 cannot definitely be determined. Had he followed in the paths of his conferees, Philadelphia and Baltimore would have been the next logical stopping places before he moved on to Virginia. Baker finally located in Williamsburg, Virginia, about 1771, for the *Virginia Gazette* of that year and of January 2, 1772, stated he "resided at Mr Maupin's." Mr Gabriel Maupin was the proprietor of the Market Street Tavern, therefore Baker's "office" was within that building. In 1773 he moved to the residence of Dr Archibald Blair.

This advertisement reads very much like his previous one, except for the additional statement that he transplanted teeth, a method very common at that time. He still continues to include that he had treated upward of 2,000 persons in New York and Boston, and as the number did not materially increase after he left Boston and New York, his practice from 1768 to 1772 was evidently small, perhaps because of illness.

We again find a notice in the *Virginia Gazette* about the 12th of August, 1772, and on January 14, 1773 he announces that he had "quite recovered from his late illness." September 16 finds him in Annapolis, according to the *Maryland Gazette*. This is the advertisement Benjamin Fendall copied verbatim as the first part of his August 15, 1776 advertisement. (Fig 18)

George Washington and William and John Baker

Washington diaries, personal account books and ledgers have been of valuable assistance in tracing Baker's activities, and help us to establish the fact that Washington employed the services of two dentists by the name of Baker, first a William, and later a John Baker. There is some confusion as to the identity of the two. The first definite reference to Washington's dental troubles is the entry found in his Ledger A, dated November 25, 1755, "paid to William Baker, £1 18 6." According to John C Fitzpatrick (1876-1940), "Washington paid a hat bill against Baker as a method of squaring Baker's bill against him" (See Chapter XVI)

Although Washington, in this entry, spelled the full name of William, his other entries refer only to "Dr Baker—a dentist," or—"surgeon dentist." There is an entry in V 2 p 59, of John C Fitzpatrick's *Diaries of George Washington*, 1925, under the date of April

Annapolis, September 14, 1773.
Dr. BAKER, surgeon dentist, from Williamsburg,
 Virginia,

BEGBEGS leave to inform the gentry, that he is now at Mrs. Mary Howard's coffee-house, and will wait on them on receiving their commands; he cures the scurvy in the gums, be it ever so bad, first cleans and scales the teeth from that corrosive tartarous gritty substance which hinders the gums from growing, infects the breath, and is one of the principal causes of the scurvy, which if not timely prevented eats away the gums, so that many peoples teeth fall out fresh, he prevents teeth from growing rotten, keeps such as are decayed from becoming worse, even to old age, makes the gums grow up firm to the teeth, and renders them white and beautiful,—he fills up with lead or gold those that are hollow, so as to render them useful, it prevents the air from getting into them, which aggravates the pain, he transplants natural teeth from one person to another, which will be as firm in the jaw as if they originally grew there, without any ligation, he makes and fixes artificial teeth with the greatest exactness and nicety, without pain or the least inconvenience, so that they may eat, drink, or sleep with them as natural ones, from which they cannot be discovered by the sharpest eye, he displaces teeth and stumps, after the best and easiest methods, be they ever so deep sunk into the socket of the gums, &c &c He has given sufficient proof of his abilities in this art, to the principal nobility, gentry, and others of Great-Britain, France, Ireland, Holland, and other principal places in Europe and America, also to some thousands in Virginia

His antiscorbutick dentifrice is quite free from any corrosive preparation, and is a certain cure for all disorders of the teeth, gums, and foul breath. Its superior efficacy over any thing yet offered to the publick will be evinced in once using, it concocts the vitiated juices, and renders a juvenile fragrance to the breath beyond description; it makes the saliva pure and balsamick, is perfectly innocent, will eradicate the scurvy, and restore the gums to their pristine state, if the teeth and gums have been thoroughly cleaned by some skilful dentist

Fig. 31 —John Baker's advertisement of September 16, 1773, which Fendall copied and used in the first sentence of his August 15, 1776, announcement *Maryland (Annapolis) Gazette*

6, 1772, which enables us to determine definitely the identity of the man, for Washington wrote "Among expense account in Williamsburg, the following by Mr Baker—Surgeon Dentist—£4 " As John Baker was then a resident of Williamsburg,⁵ there can be little doubt as to which Baker he intended

Washington's personal account books which we examined in the *Library of Congress*, *John Carter Brown Library* in Providence and the *Historical Society of Pennsylvania*, show the following entries relating to John Baker. These were later transferred to his Ledger B

"(In Williamsburg) Baker, Mr—Surgeon

	Dentist,	April 6, 1772	£ 4 0 0
Ledger B	Baker, Dr—a Dentist,	March 11, 1773	1 6
Ledger B	Baker, Dr—Surgeon		
	Dentist,	Oct 15, 1773	5
Ledger B	Baker, Dr—Paid,	Oct 27, 1773	3
	Toothbrushes,	Oct 26, 1773	5
	Baker, Dr—Dentifrices,	Nov 26, 1773	1
	Baker, Dr—Cash for	June 14, 1774	15
	Baker, Dr—Cash Paid	Aug 1 1774	1 4"

In Washington's *Diaries* there are but two references to Baker, which, without doubt, refer to John. The first is dated October 13, 1773 (V 2, p 127) "Mr Beal went away after breakfast. I continued home all day. In the afternoon Mr Willis and my Brother Charles came, as also Mr Baker, Surgeon Dentist." Again on December 2, 1785 "Friday Colo & Mrs McCarty came here to Dinner, as did Colonels Fitzgerald and Gilpin and Mr Chas Lee & Doctor Baker." The reference of October 13, 1773, is likewise recorded in Ledger B under the date of October 15. Baker is first mentioned as "Doctor" in the ledger under the entry of March 11, 1773, whilst in the diary he is not so referred to until December 2, 1785. Why he never used the title of M.D. remains a mystery.

Up to this period, Baker had given his full name in his announcements in the newspapers, but from now on the notices omitted the first name, and thus made the tracing of his activities increasingly difficult. During the remainder of Baker's stay in Virginia, for some unknown reason he discontinued the use of newspaper announcements, thus the period from August, 1774, until June 23, 1779, remains a blank, except that on September 7, 1774, *The Maryland Journal*, etc., shows he was again in Baltimore and Annapolis and would remain there until October.

That he continued, however, to reside in Williamsburg, is established by the fact that on July 3, 1773, he purchased from a William Hornsby, a merchant, for 425 pounds (Book 8—Deeds), the property now known as the Norton House in the newly reconstructed Colonial Williamsburg. Here he lived until the fall of 1777, and on August 8,

Baker advertised the property for sale "with intention of leaving state in short time," disposing of it eventually to a Mr William Pitts This information was supplied me by Dr William N Hodgkin of Warrenton, Va

Baker left Williamsburg in 1778 and made his way to Philadelphia, where for at least ten years he continued to practice dentistry In the *Pennsylvania Journal* of June 23, 1779 we find the first Philadelphia advertisement of "Doctor Baker, Dentist from Williamsburg—well known to the principal nobility, etc, of Great Britain, France, Ireland, Holland and other principal places in Europe, also to some thousands in America" As this notice now reads quite differently from those previously cited, there might be some doubt of this dentist's true identity, however, the above-mentioned stereotyped phrase clearly establishes him to be our John Baker

"Doctor Baker, Surgeon Dentist, from Williamsburg, in Virginia, may be consulted in all disorders of the Teeth, gums, sockets, ulcers, cancers, abscesses, fistulas, suppurations and inflammations in the gums, which are more or less of a malignant nature, and in this way not only the gums are destroyed but also the teeth He eradicates the scurvy, be it ever so bad, transplants natural teeth from one person to another, which will be as firm in the jaws as if they originally grew there, without any ligament, and fixes artificial teeth, from a single tooth to a complete set He has given sufficient proof of his judgment in this art to many thousands in America

NB His well known Anti-scorbutic Dentifrice, for preserving the Teeth and Gums, is quite free from any corrosive preparations, and is a certain cure for most disorders of the teeth, gums and foul breath, it is perfectly innocent, will eradicate the scurvy, and restore the gums to their pristine state, if the teeth and gums have been thoroughly cleaned by some skilful dentist, its efficacy is well known to the principal nobility, gentry, and others of Great Britain, France, Ireland, Holland, and other principal places in Europe, also to some thousands in America—The dentifrice may be had, with proper directions, at his house in Second street, a few doors before the Dock Penna Journal, June 23, 1779 No 3611 "

His advertisement must have brought results for he remained in Philadelphia, carrying on his practice until 1790

John F Watson, in his *Annals of Philadelphia*, wrote (Vol 1, p 179) "that when Joseph Lemaire first landed in Philadelphia in 1784 he found there a dentist by the name of Baker, who was 'the first person ever known as a dentist in Philadelphia' "

In Francis White's *Philadelphia Directory* for 1785, the first directory of Philadelphia published, the name of Dr John Baker, dentist, appeared, and his location was given as on Second Street, between Walnut and Spruce The same directory gave the name of James Gardette, the only other dentist mentioned The advertisement announcing the canvass for the directory stated that it contained only

the names of permanent residents. It is doubtless from this source that Watson derived his information and made the statement, afterward quoted in the *History of Dental and Oral Science in America* by Dexter Watson was in error, however, in giving Baker the credit of being the first person known as a dentist in Philadelphia, as several others were active there previous to the advent of Le Mayeur, among others Michael Poree, who advertised in the *Pennsylvania Gazette* of July 6, 1771, as a Surgeon Dentist, "just arrived from New York"

New York, or Maryland

Sir,

2 days or two ago. I requested
Col^d. Garrison to apply to you for a pair of
"teeth, to enter the office of my teeth" - hope
you will not be with them. I then went
you would. Had me one of your teeth,
as my teeth stand in need of cleaning, and
I have little experience in Philadelphia
soon - It will come very late by the Post -
which, the morning that he left to come -
I know the cost of it -

I am Sir

Y^r Very Obedtⁿ

G^t W^hashington

Doct^r Baker

Philadelphia

Fig 32—Letter sent by George Washington to (John) Baker, March 29, 1781. This photograph reveals the alteration in the month. (Reproduced here by courtesy of William L. Clements Library.)

In the *Pennsylvania Colonial Record* V XII, p 501-2, Baker was mentioned in connection with a private rather than professional matter

"Baker, John, resided in Philadelphia and owned negroes In September, 1780, petitioned the Supreme Executive Council of Pennsylvania for the remission of a fine and a whipping decreed by the Court as a punishment upon his negro men, 'Jim,' 'Nat,' and 'Cato' for stealing Petition granted "

On March 29, 1781, General Washington sent, from New Windsor, a letter to "Doctr Baker" in Philadelphia, which was intercepted by the British and found among the papers of General Clinton, now in possession of *William L. Clement's Library*, at Ann Arbor, Michigan, and which was undoubtedly intended for John Baker (Fig 32) Someone evidently tried to alter the date to read "May" instead of March, as is clearly shown in the photostat copy, and as it is generally given This letter was first recorded in the *Dental Digest* of November, 1924, and *Dental Summary* of January, 1925 Unfortunately both of these accounts were incorrect as far as the name of the dentist was concerned, because they read as follows

"In 1788, he wrote to Dr Barton, his dentist in Philadelphia,"

No doubt Washington wondered why he did not receive either a reply from Baker or the instruments themselves

The next mention of Baker is in a notice of John Felsted addressed to Philip Clumberg. It gives an interesting sidelight of the quackery practiced at that time

"Felsted, John

Mr Philip Clumberg

Barber and tooth drawer

To Mr Philip Clumberg, Barber and Tooth-Drawer, Arch between
Second and Third-streets

Sir

Let me seriously advise you to lay aside the performance (if you so call it) Of tooth-drawing, as you have this day done me great injury in your attempt, or I would say barbarous and violent exertion Indeed the consequences of the fracture you have produced in my jaw and the quantity of Gums and flesh torn away by your instrument and fingers is not and will not be known for some days Dr Baker has just left me, after extracting the splinters of bone you occasioned I expect every moment to spit out the two sound teeth you have displaced

Yours, etc

John Felsted

The corner of Third and Vine Streets
Freemans Journal, October 15, 1784 "

Here we find interesting evidence that for the first time a "specialist" was consulted to correct the defects caused by a "quack "

Little of Baker's life or practice in Philadelphia has been unearthed, and we are still in hope that some day material will be discovered in

the various historical libraries in Philadelphia, although communications from the curators of these collections leave little hope. There are no future entries in Washington's ledgers or account books that would indicate that Baker ever performed further dental services for Washington, therefore the "sets" or dentures credited to Baker must have been the work of someone else. That he established a practice in Philadelphia cannot be questioned, for in his will he bequeaths his possessions in Pennsylvania to his heirs. He did not mention in detail, however, his property in Great Britain, the Island of Jamaica, Virginia or in Pennsylvania, as he did his New York estate, and we presume they were of much less importance. The Great Britain property, being derived from an estate, might have been his only during his lifetime, and upon death transferred to another. This would leave further credence to the "heir" advertisement being Baker's.

That Baker must have been a dentist of more than average ability, well grounded in the fundamentals of his profession, and deeply and sincerely concerned with the health and the proper care of the teeth of the community can be seen in the circular reproduced in Fig 32A. It is the most important and illuminating historical dental document that has come into our possession and perhaps the only one to have been preserved during the intervening years.

As the number of dentists then practicing in the Colonies was but a handful, there was but one possible method of educating the community, and that was through publicity in the newspapers, periodicals, broadsides and by circulars attached to "pots" of dentifrices and mouth washes. Judged by the many years such instructions were in circulation, they must have proved an effective method. Baker only adopted the prevailing oral hygiene practice then in use in Europe, bringing with him also tooth brushes and a formula for dentifrices and mouth washes.

It is from such historical documents as the one shown in Fig 32A, that the historian is able to piece together information as to the times and methods of dental practice. From the circular in question we also learn much which relates to Baker that otherwise would have remained unknown.

If the coat-of-arms with which it was sealed were not missing, we might have been able to trace through it just where and when Baker was born.

By the time Baker located in Philadelphia, in fact even earlier, he apparently considered that his reputation had been so well established that there was no need for him to continue to use his given name and therefore dropped it. In doing this we have had some difficulty straightening out the Bakers that practiced dentistry in the Colonies. However, he fortunately did continue to include in his varied notices that he had formerly practiced in France, Holland, Great Britain, etc.,

and thus in the third paragraph clearly establishes the fact that the author was our John Baker, originally from Boston

Establishing the approximate date on which the circular was printed is important for reasons that will be considered later. Baker's stay in Philadelphia extended from 1778 to 1786, during which time he lived on Second Street. His notices dated 1779 inform us that "his house was but a few doors before the dock," later we find that he moved between Walnut & Spruce. In none of his announcements prior to 1779 do we find Baker advertising both his dentifrice and albion-essence in the same notice. As both the circular and announcements read alike, and as No. 45 Second Street was in the block near the dock, we are fairly safe in claiming 1779 as the year of publication.

Dr BAKER's Albion-Essence, and Anti-Scorbutic Dentifrice, for preserving the TEETH, GUMS, SOCKETS, &c.

Sold Wholesale and Retail, at his House, No. 45, Second Street, PHILADELPHIA—Where all M. Chants, Shopkeepers, and Masters of Vessels may be supplied with any Quantity to foreign parts, with proper printed Directions in any Language.

EACH pot of anti scorbutic Dentifrice, has to prevent fraud, his name on the cover and sealed with his coat of arms, the same as the copperplate arms on the label of the bottle of Albion Essence.

He thinks himself happy in being able to offer to the public two preparations, the powerful Anti Scorbutic Dentifrice and Albion Essence prepared by himself and warranted to be perfectly free from the least corrosive particle or injurious property whatever.

It is replete with that Balsamic Quality, which prevents all fluxions falling on the gums, or putrefactions that cause bad breath, it takes off the murrainous property that dissolve the sockets of the teeth and prevents the tooth ach arising therefrom, it prevents obstructions and inflammations of the nerves and vascular parts of the teeth and the head and tooth ach arising therefrom, it concocts the vitiated juice, renders, beyond description a juvenile fragrance to the breath makes the teeth white and beautiful causes the gums to grow firm to the teeth makes the saliva pure and balsamic eradicates the scurvy, and restores the gums to their pristine state. If the teeth and gums have been thoroughly cleaned by some skilful Dentist.

Its efficacy is well known to the principal nobility, gentry and orthodoxy, in France, Holland, Great Britain, Ireland, and other principal places in Europe also to some thousands in America.

A long extensive course of practice, for upwards of twenty seven years past has enabled him to acquire a knowledge to remedy all the disorders of the teeth gums, sockets, &c. &c. As he intends spending the remainder of his days in this country he would willingly introduce and recommend a more general attention than has hitherto prevailed, for the preservation of the teeth so useful to the purpose of life and so ornamental in that part of the creation where beauty seems to have fixed her particular seat.

As teeth suffer so very much both in size smoothness and evenness, it is very difficult to lay down any set of rules that will suit every person. Some having the enamel much thinner than others, some people's teeth fur exceedingly soon while others scarcely feel at all some being very subject to the scurvy, others perfectly free, &c. it reasons, with various others, make more or less care and attention necessary for preserving the teeth, gums, and sockets.

DIRECTIONS for the use of the Dentifrice and Teeth and Gum BAKERS

Lay a small quantity of the Dentifrice on the brush, so as to cover the hair, then rub the teeth and gums both on the outside and inside very well principally upwards and downwards and but little crossways. Let it remain in your mouth about two minutes, then wash your mouth with water, milk warm, and take about a large tea spoon full of Albion Essence to rinse your mouth, and force it between the teeth, for it destroys the fetid matter that lodge between the interstices and carious parts of the teeth, use the Dentifrice three times a week, the Essence may be used every morning with a brush, either before or after breakfast. Let none of the aliment of food remain between your teeth after eating, and if the brush is not sufficient to take it out of every cavity use a quill tooth picker and the water as before mentioned and by adding a little of the Essence to the water it will be much better if the gums are tender, make use of a soft brush till the nature of the gums becomes firmer and in a better state then take a harder one in so doing you may keep carious teeth from becoming worse, and preserve a sweet breath during life.

are shedding, and the new ones appear the enamel of the second teeth will be hurt notwithstanding it is wrapped up in its membrane, for it is nothing else, but in the state of a soft mucus, which will be rendered acid by the same cause, all this is easily prevented, by paying a little attention to your children, and by these means they will enjoy the pleasure and benefit of good teeth, and freedom from pain therein, during the whole course of their lives. There is also a very great advantage attending this practice, for if children are accustomed to take care of their teeth while young they will, from habit, persevere in it when they grow up, and will not think it a trouble.

NECESSARY PRECAUTIONS

Never suffer any of the aliment of food to remain between your teeth after eating, especially if you have any carious teeth, if you do, it will putrify and destroy the teeth gums, and sockets, and cause bad breath. Avoid picking your teeth with pins use a quill tooth picker, don't be prejudiced against the use of a brush in cleaning the teeth and gums, for upon the most exact observation and nitel inspection, a proper brush has been found preferable to any other thing whatever it being elastic, and gives way to the teeth in all directions, and takes every thing from between the interstices and carious parts of the teeth, eat nor drink any thing that is very hot or very cold, avoid cleaning your teeth with powders composed of hard, indissoluble substances, or any thing that contains the least corrosive particle for it is easily known by it a vitriolic taste, rinse the mouth with milk warm water after every meal, never suffer any tartar, fur, or black specks to remain between your teeth, but as soon as they make the least appearance, have them removed. If your gums swell, and leave your teeth, have them examined by a skilful person.

People in general ought not always to have their teeth examined when they ach, nor put any thing in the mouth that is corrosive to give a temporary ease, if even the tooth ach is violent, and attended with an inflammation I would not always advise extracting, especially if they have but few jaw teeth, in this case I would have them take advice, see sometimes filling up carious teeth, with lead or gold, the use of the Albion Essence, a friction of the brush, lancing the gums, &c. &c. have a great tendency to give ease and save their teeth, so as to render them serviceable through life.

Pray, don't neglect your children's teeth, when in a state of childhood, for by cleaning of them, even in their tenderest state, with proper medicine, will prevent a number of disorders. Great care ought to be taken in the second dentition of children's teeth, to prevent deformities, diseases and to preserve their beauty.

Inferre since my residence in this city that as soon as the teeth make their appearance, the caries begin to attack them, and consequently they stand in need of proper assistance. One should think that their hardness would render them less susceptible, but they are even more subject to a caries, than all other bones. It is very easy however, to trace the causes of it. As teeth are of a softer texture their vessels are more compressed, and therefore obstructions are easily occasioned when any thing very hot or very cold happens to strike them to a certain degree or when the bony fibres suffer by some extraordinary effort, if the juices that circulate through the same channels of the teeth are too thick or any way vitiated, the teeth will be more liable to be contaminated, but always in proportion to the impression they shall receive.

Fig 32A—Directions for the use of John Baker's mouthwash and dentifrice Philadelphia [1779?] (Courtesy of Dawson Book Shop, Los Angeles, Calif)

This brings us to the important information contained in paragraph five—"A long, extensive course of practice, for upwards of twenty-seven past, has enabled him to acquire a knowledge to remedy all the disorders of the teeth gums, sockets, &c, &c." If 1779 is the correct date of the document, then Baker began his dental practice in 1752. As we believe Baker located in Boston about 1763, he then would have had ten years of dental practice on the Continent before coming to this country. Again assuming that he was around twenty when he entered into the practice of dentistry, his birth year would then be around 1732. From this assumption others can begin to study the Baker genealogical records in England and Ireland.

In order to have the cut in its entirety, we have had to reduce the size from $6\frac{1}{2} \times 12$ inches, making the reading of the text too difficult. Feeling that the information therein contained is extremely important and in order to properly consider Baker's knowledge of dentistry, we have decided to here record the varied instructions and precautions.

DIRECTIONS for those who are much troubled with the SCARV or the Gums, redness and Loosening of the Teeth

Let your gums be lanced in every soft spongy part use the Albion Essence every morning pour about the quantity of two or three tea spoons full into a cup dip a soft brush therein and rub your gums well to promote a circulation of the fluids use the Dentifrice about four times a week till you find the gums braced up, and grown firm and close to the teeth, after which they may be kept in good order with very little trouble.

DIRECTIONS for those who form a considerable quantity of TARTARUS upon their TEETH

Whatever is the cause that produces this tartar or fur, or whatever time it makes its appearance, it evidently ought to be removed as soon as possible otherwise the gums, by the compression will swell and obstruct the regular course of the fluids through the lymphatic and blood vessels, which will be liable to putrify and destroy in a short time, the gum, the socket and periosteum of the root, it would be too late to hinder the loss of the teeth, which is now left without any support, so by these means the teeth fall out fresh. To remedy this evil use both the Essence and Dentifrice every morning, with proper brushes as before directed till the fur is perfectly removed and the teeth quite smooth after which the Dentifrice twice a week will be sufficient but the Essence and Brush must be continued every morning without which, teeth of this sort cannot be kept in good order.

DIRECTIONS for those who are troubled with PAINS of the TEETH and Gums, also those PAINS of the Teeth which affect Ladies during Pregnancy

This Albion Essence is not immediately adapted nor intended for the tooth ach, yet there are few pains of the teeth, gums, or sockets, in which it will not give relief, pour a little Essence into a cup, dip a soft hair brush therein, and rub the gums well where the pain is, also put some in a table spoon and warm it over the fire and apply it to the affected part till the mouth is quite full of it, then spit it out, renew it again, and continue repeating it in the same manner, till the pain is perfectly removed, afterwards, by using it every day to clean the teeth and gums, the return of the pain will be prevented, don't wash your mouth after using the Essence.

DIRECTIONS for those who have CHILDREN

One principal cause of the loss of teeth early in life, is neglect and inattention, therefore I would recommend the use of the Albion Essence and a very soft brush, about three times a week, for children's gums are sometimes rough, as if spread all over with little grains, like seeds under the skin, these little hard tumours will come to a suppuration and infect not only the gums, but will bring on a carious in their first teeth, and, if great care is not taken, when the milk teeth

Various are the species of CANCERS, almost every part of the teeth are affected by it and both internal and external causes produce it a cancer may be divided into soft superficial deep and dry, it attacks the root, the neck or crown of the tooth and sockets, all these are the fruits of irritation and negligence, and are easily prevented, and when recent, very speedily cured, when not so.

The Doctor may be consulted on all disorders of teeth, gums, sockets, ulcers, cancers, abscesses, fistulas, suppurations, inflammations, fungi, excrescences, exposure of the roots of teeth, recession of the gums, formation of the different kinds of tartar, change of position, protrusion, looseness, luxation, caries, and caries of the bones which form the sockets, caries of the teeth, loss of enamel matter collected in the maxillary sinusses, sometimes in the cancellated substance of the lower jaw; fractures, contusions of nerves and vascular parts of the teeth, softness and bleeding of the gums, compression of tartar that obstructs the regular course of the fluids, which will be liable to putrify and destroy in a short time the gum, the socket, and periosteum of the root. Every one of the above diseases of the teeth and gum, will cause the tooth ach, head ach, ear ach, eye ach, loss of teeth, fetid breath, &c.

He also may be consulted in all disorders incident to children in teething for the eruption of teeth in children, is often attended with the most fatal consequences, by causing fevers, convulsions, gripes in the intestines, acidities in their stomachs &c &c and they suffer in proportion to the delicacy and sensibility of their constitutions, also in the number and figure of their teeth that push out at the same time, for the gums are found to be more tense and liable to inflammation in some children, than others and if a proper attention was paid, the lives of numbers of children might be saved.

Those who have had the misfortune of losing their teeth, may have natural teeth transplanted, or grafted on the old stumps. Also artificial teeth, from a single tooth, to a complete set.

The Doctor begs leave to acquaint the public, that this new method, he lately invented of setting teeth answers beyond description even without pain or force, and is far preferable to any method used in Europe.

The Dentifrice and Essence (with proper brushes) may also be had, of Messrs Le Blanc & Wagner, of Miss Ann Donkin, in Miller's Chestnut Street, of Mr. W. Foyntell, opposite the Friends Meeting House door, in Second Street two doors from Market Street, of the widow Strickland, opposite the City Tavern, in Second Street, of Mr. Felix Bruno, in Walnut Street near the Dock, of Mr. Robert Akken, in Market-Street, near the Coffee House, Philadelphia, of Mrs. Ann Timothy, printer at Charlestown South Carolina, and of Mr. John Gratzough, merchant, at Williamsburgh, Virginia.

Fig 32B—Lower half of Fig 32A

Paragraph six relates to a number of interesting observations made by Baker "As teeth differ so very much" he states "both in size, smoothness, and evenness, it is very difficult to lay down any set of

rules that will suit every person, some having the enamel much thinner than others, some people's teeth *fur* exceedingly soon, while others scarcely *fur* at all, some being very subject to the scurvy, others perfectly free, these reasons, with various others, make more or less care and attention necessary for preserving the teeth, gums, and sockets." The word *fur* as Baker uses it must have been a common word and well understood at the time, although we have never seen it so used before. It has been defined as a morbid coating of mucos, a yellow or greasy, hazy, precipitate, resembling soft tartar, containing much mucilage. Baker later explains its meaning when he states "for those who form a considerable quantity of *tartar* or *fur* upon their teeth."

"DIRECTIONS for those who have carious Teeth and bad Breath Lay a small quantity of the Dentifrice on the brush, so as to cover the hair, then rub the teeth and gums both on the outside and inside very well, principally upwards and downwards, and but little crossways. Let it remain in your mouth about two minutes, then wash your mouth with water, milk warm, and take about a large teaspoonful of Albion-Essence, to rinse your mouth, and force it between the teeth, for it destroys the fetid matter that lodge between interstices and carious parts of the teeth, use the Dentifrice three times a week, and Essence may be used every morning with a brush either before or after breakfast. Let none of the aliment of food remain between your teeth after eating, and if the brush is not sufficient to take it out of every cavity, use a quill tooth-picker, and the water as before mentioned, and by adding a little of the essence to the water, it will be much better, if the gums are tender, make use of a soft brush, till the texture of the gums becomes firmer and in a better state, then take a harder one, in so doing, you may keep carious teeth from becoming worse, and preserve a sweet breath during life."

As we read the above lines we could not help but wonder if our method of oral hygiene care and instructions in tooth brushing has advanced greatly in nearly two hundred years. As for the tooth brush, an invention of the Chinese in 1498, we find little change from its original form. The type used by Baker was undoubtedly similar to those shown in Figs. 49 and 80.

"DIRECTIONS for those who are much troubled with the Scurvy in the Gums, relaxed Fibres and Loose Teeth

"Let your gums be lanced in every soft, spongy part, use the Albion-Essence every morning, pour about the quantity of two or three teaspoons full into a cup, dip a soft brush therein, and rub your gums well, to promote a circulation of the fluids, use the Dentifrice about four times a week, till you find the gums braced up, and grown firm and close to the teeth, after which they may be kept in good order with very little trouble.

"DIRECTIONS for those who form a considerable quantity of Tartar or Fur upon their Teeth

"Whatever is the cause that produces this tartar or fur, or whatever time it makes its appearance, it evidently ought to be

removed as soon as possible, otherwise the gums, by the compression, will swell, and obstruct the regular course of the fluids through the lymphatic and blood vessels, which will be liable to putrify and destroy, in a short time, the gum, the socket, and periosteum of the root, it would be too late to hinder the loss of the teeth, which is now left without any support, so by these means the teeth fall out fresh. To remedy this evil, use both the Essence and Dentifrice every morning, with proper brushes, as before directed, till the fur is perfectly removed, and the teeth quite smooth, after which the Dentifrice twice a week will be sufficient, but the Essence and Brush must be continued every morning, without which, teeth of this sort cannot be kept in good order.

“DIRECTIONS for those who are troubled with Pains of the Teeth and Gums, also those Pains of the Teeth which affect Ladies during Pregnancy

“Thus Albion-Essence is not immediately adapted nor intended for the tooth-ach, yet there are few pains of the teeth, gums, or sockets, in which it will not give ease, pour a little Essence into a cup, dip a soft hair brush therein, and rub the gums well where the pain is, also put some in a tablespoon and warm it over the fire, and apply it to the affected part, till the mouth is quite full of rheum, then spit it out, renew it again, and continue repeating it, in the same manner, till the pain is perfectly removed afterwards, by using it every day to clean the teeth and gums, the return of the pain will be prevented, —don’t wash your mouth after using the Essence

“DIRECTIONS for those who have children

“One principal cause of the loss of teeth early in life, is neglect and inattention, therefore I would recommend the use of the Albion-Essence and a very soft brush about three times a week, for children’s gums are sometimes rough, as if spread all over with little grains, like seeds, under the skin, these little hard tumours will come to a suppuration, and infect not only the gums, but will bring on a carious in their first teeth, and, if great care is not taken, when the milk-teeth are shedding, and the new ones appear, the enamel of the second teeth will be hurt, notwithstanding it is wrapped up in its membrane, for it is nothing else, but in the state of a soft mucus, which will be rendered acrid by the same cause, all this is easily prevented, by paying a little attention to your children, and by these means they will enjoy the pleasure and benefit of good teeth, and freedom from pain therein, during the whole course of their lives. There is also a very great advantage attending this practice, for if children are accustomed to take care of their teeth while young, they will, from habit, persevere in it when they grow up and will not think it a trouble

“NECESSARY PRECAUTIONS

“Never suffer any of the aliment of food to remain between your teeth after eating, especially if you have any carious teeth, if you do, it will putrify and destroy the teeth, gums, and sockets, and cause bad breath, avoid picking your teeth with pins, use a quill tooth-picker, don’t be prejudiced against the use of a brush for cleaning the teeth and gums, for upon the most exact observation and nicest inspection, a proper brush has been found preferable to any other

thing whatever, it being elastic, and gives way to the teeth in all directions, and takes everything from between the interstices and carious parts of the teeth, eat nor drink anything that is very hot or very cold, avoid cleaning your teeth with powders composed of hard, indissoluble substances, or anything that contains the least corrosive particle, for it is easily known by its vitriolic taste, rinse the mouth with milk-warm water after every meal—never suffer any tartar, fur, or black specks to remain between your teeth, but as soon as they make the least appearance, have them removed. If your gums swell, and leave your teeth, have them examined by skillful person

“People in general ought not always to have their teeth extracted when they ach, nor put anything in the mouth that is corrosive to give a temporary ease, if even the tooth-ach is violent, and attended with an inflammation, I would not always advise extracting, especially if they have but few jaw-teeth, in this case I would have them take advice, for sometimes filling up carious teeth, with lead or gold, the use of the Albion-Essence, friction of the brush, lancing the gums, &c &c have a great tendency to give ease and save their teeth, so as to render them serviceable through life

“Pray, don’t neglect your children’s teeth, when in a state of childhood, for by cleaning of them, even in their tenderest state, with proper medicine, will prevent a number of disorders. Great care ought to be taken in the second dentition of children’s teeth, to prevent deformities, diseases, and to preserve their beauty

“I observe since my residence in this city, that as soon as the teeth make their appearance, the caries begin to attack them, and consequently they stand in need of proper assistance. One should think that their hardness would render them less susceptible, but they are even more subject to a caries, than all other bones. It is very easy, however, to trace the causes of it. As teeth are of a closer texture their vessels are more compressed, and therefore obstructions are easier occasioned when anything very hot or very cold happens to strike them to a certain degree, or when the bony fibres suffer by some extraordinary effort, if the juices that circulate through the same channels of the teeth are too thick or any way vitiated, the teeth will be more liable to be contaminated, but always in proportion to the impression they shall receive

“Various are the species of Caries, almost every part of the teeth are affected by it, and both internal and external causes produce it, a caries may be divided into soft, superficial, deep and dry, it attacks the root, the neck or crown of the tooth and sockets, all these evils, the fruits of inattention and negligence, are easily prevented, and when recent, very speedily cured, *vincit veritas*

“The Doctor may be consulted on all disorders of teeth, gums, sockets, ulcers, cancers, abscesses, fistulas, suppurations, inflammations, fungi excrescences, exposure of the roots of teeth, recess of the gums, formation of the different kinds of tartar, change of position, protrusions, loosenesses, luxation, caries, and exostosis of the bones which form the sockets, caries of the teeth, loss of enamel, matter collected in the maxillary sinusses, sometimes in the cancellated substance of the lower jaw, fractures, obstructions of nerves and vascular parts of the teeth, softness and bleeding of the gums,

compression of tartu that obstructs the regular course of the fluids, which will be liable to putrify and destroy, in a short time, the gum, the socket, and periosteum of the root Every one of the above diseases of the teeth and gums, will cause the tooth-ach, head-ach, ear-ach, eye-ach, loss of teeth, fetid breath, &c

"He also may be consulted in all disorders incident to children in teething, for the eruption of teeth in children, is often attended with the most fatal consequences, by exciting fevers, convulsions, gripes in the intestines, acridities in their stomachs, &c &c and they suffer in proportion to the delicacy and sensibility of their constitutions, also in the number and figure of their teeth that push out at the same time, for the gums are found to be more tense and liable to inflammation in some children, than others, and if a proper attention was paid, the lives of numbers of children might be saved

"Those who have had the misfortune of losing their teeth, may have natural teeth transplanted, or grafted on the old stumps Also artificial teeth, from a single tooth, to a complete set

"The Doctor begs leave to acquaint the public, that this new method, he lately invented, of setting teeth, answers beyond description, even without pain or force, and is far preferable to any method used in Europe

"The Dentifrice and Essence (with proper brushes) may also be had, of Messrs Le Blanc and Wagner, of Mrs Ann Dunkin, millner, in Chestnut-street, of Mr W Poyntell, opposite the Friends' Meeting House door, in Second-street, two doors from Market-street, of the widow Strickland, opposite the City-tavern, in Second-street, of Mr Felix Bruno, in Walnut-street, near the dock, of Mr Robert Aitken, in Market-street, near the Coffee-House, Philadelphia, of Mrs Ann Timothy, printer, at Charlestown, South-Carolina, and of Mr John Grenoogh, merchant, at Williamsburgh, Virginia"

Just when Baker left Philadelphia is also uncertain, as the last address in the directory of that city was recorded in 1785 and the next issue did not appear until 1791 In this last year he was again a resident of New York In the meantime he resided somewhere in Rhode Island, as he states when he purchased and took deed to his New York property This document, dated May 1, 1791, is to be found in the *Library of Conveyances* 46, New York City, pages 485-489 "John Baker, June 21, 1791, from Mary Ellis of the Outward of the City of New York John Baker, late of the State of Rhode Island, but at present of the said city of New York for and in consideration of 3,600 pounds of the State of New York, etc" This would indicate that Baker must have had a successful practice which well repaid him for his professional services

He lived upon this farm in New York City until his death on Saturday, September 24, 1796, and as no further advertisement relating to his professional activities appeared, he must have discontinued practice when he left Philadelphia Having reached an advanced age, he retired to enjoy a leisure he had well earned

This farm of some forty-six acres was about six miles north of the city at that time, and was known in 1791 as *Sans Souci*. After Baker's purchase, it was called *Baker Retreat* or *Baker's Farm*. Unfortunately nothing is recorded regarding this property in early New York history.⁶ It was located between 76th and 81st Streets, bounded by the East River on one side and reaching half way to 2nd Avenue, as may be seen in the accompanying map (Fig 33)

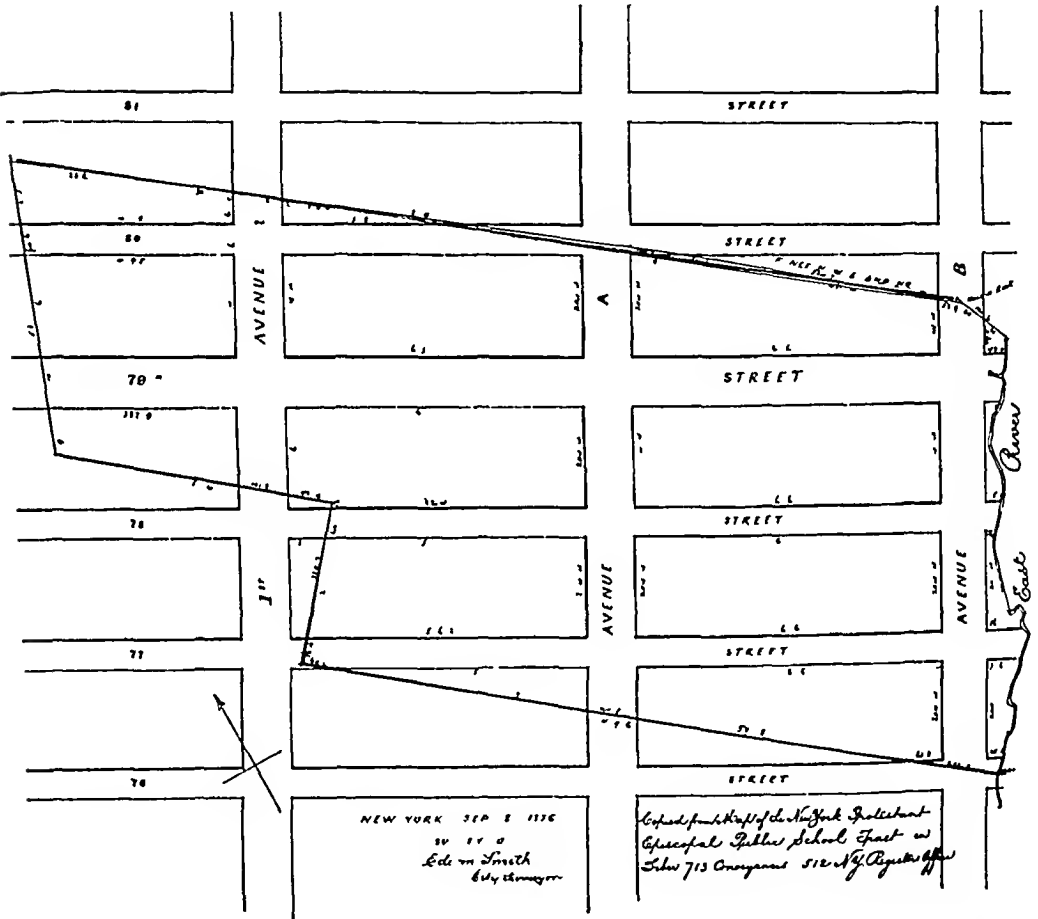


Fig 33 —Site of the property in New York known as *Sin's Souci*, acquired by John Baker in 1791, and sold in 1873 to provide an endowment for free education of children in New York City

Baker's will, dated September 20, 1796, four days prior to his death, proved and recorded November 25, 1796 (Wills 42 p 112-117), was a lengthy one. He declared himself an inhabitant of the 7th ward of the City of New York, and indicated that he left no direct descendants. His collateral relatives and their descendants were aliens and subjects of the crown of Great Britain. He left his estate for life "for

consideration of the unfeigned affection which has subsisted between me and my beloved wife, Mary, all my lands, Tenements, hereditaments and real estate whether the same be situated in Great Britain, the Island of Jamaica, the State of Virginia, the State of Pennsylvania, the said State of New York, or elsewhere To have and to hold same for and during the term of her natural life" "And for the same reason he gave to his wife all of his personal estate except what is otherwise provided for in the Will" His wife was also appointed sole Executrix "But I nevertheless recommend it to her to advise in all difficulty with my friends, John Delafield of Queens County, Thomas Jones, Physician, Robert Troup of New York City, and John Banister, Sr, of the State of Rhode Island" Upon her death, all the property in New York, including "the use of all the furniture and utensils, instruments of husbandry, horses, cattle and other stocks belonging to the said farm," was to be given "for and during the term of their joint natural lives to John and his wife, Christian Banister" The testator then gave succession life interests in the same property to Charles Delafield, the youngest son of John Delafield, then to the other sons, Henry, William, John, Joseph and Edward Baker's last provision showed that he had faith in the future development of New York, and realized that some day the estate would be of great value

"I do give and devise the said seat, farm or tract of land, together with the said dwelling house, buildings and improvements, and the said right to the said Commons to the Governor of the said State of New York for the time being, in fee simple, but in trust, nevertheless, to take and receive the rents, issues and profits thereof, and apply the same forever to the education, support and maintenance of the charity scholars from time to time belonging to the Charity Schools under the care, direction and management of the Corporation of Trinity Church, in the said City of New York, and upon no other trust whatever"

Besides the farm, the following personal bequests were made by Baker to John Banister, Sr—his double cased gold watch, and upon the death of his wife, Mary, all the remaining money or securities to him and his wife, Christian, except the sum of two thousand (\$2,000 00) dollars to John Jones, the son of Thomas Jones, and to Ann Delafield, wife of John Delafield, "a large silver two handled tureen with the silver covers"

In the will of September 20, he expressed a desire that his wife retain all of his negro servants, but "in any case they were not to be sold as slaves" If certain slaves were still on the farm after the death of his wife, Mary, "James was to receive a dollar per week, and Dinah one-half dollar per week during their natural lives" On Sept 23, Baker made a codicil to the will, providing that after his wife's death, John Banister was to be given an additional sum of 400 dollars, and he directed "that my four negro servants, James and Dinah and John

and Mary and their children shall have a living support and maintenance off and from my said farm during their respective lives”

In the codicil, further provision was made that in case John and Christian Banister should die prior to his wife, then “out of the money remaining” the sum of 5000 pounds in cash to John Banister, Jr., and in case Baker’s wife should remarry, one-half of the personal estate should go to John Banister, Sr. In addition, a sum of four hundred dollars was to be given to the above-named immediately after Baker’s death

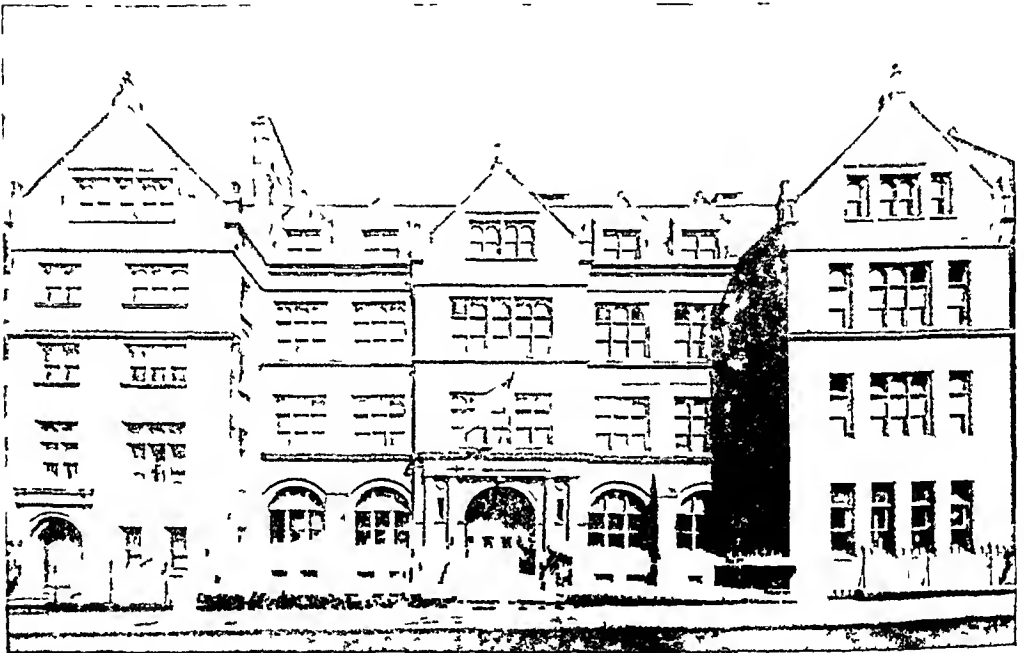


Fig. 34—The present *Trinity School*, 139-147 West 91st Street, New York City, endowed through the will of John Baker, one of the earliest American benefactors in education

On May 1, 1850, Henry, Joseph and Edward Delafield, the last three heirs entered into a contract with the *New York Protestant Episcopal Public School* to turn over this property for the annual sum of \$1500. The contract was approved on September 17, 1852, and in 1873 the above institution sold the property for many millions of dollars. *Trinity School* was founded in 1709 under the auspices of the *Venerable Society for the Propagation of the Gospel in Foreign Parts*, and was maintained in connection with Trinity Parish until 1806. This society began in 1709 and continued until a year after the Revolution, contributing 50 pounds a year to Trinity. The school at the start was conducted in the tower of the old Trinity Church, and in 1893, due to the growing demand for space in the school, moved to 91st Street, between

Columbus and Amsterdam Avenues In 1806, through The State Legislature, an Act was passed to incorporate it as the *Trinity Protestant Episcopal Charity School*, under which name it still continues Thus Baker became one of the early benefactors in this country and a great believer in free education for the youth of this new nation ⁷



Fig. 35 —The grave of John Baker, pioneer American Colonial dentist and benefactor of free education Baker, in 1796, was buried on his farm upon the East River, in 1874 the corporation of *Trinity School* removed his remains to *Trinity Cemetery*, 154th Street and Broadway

Unfortunately, the records of Trinity and other burial places failed to show where Baker was buried, so that the dental profession of New York City was unable at their Centennial Meeting (1934) to pay fitting honor to this benefactor and pioneer dentist, by some tablet, properly placed, recording his contributions to his profession In May, 1935, we did succeed in locating the grave in Trinity Cemetery on the West side of Broadway between 153rd and 154th Street Evidently his body was removed, at the time of the sale of "*Baker's Retreat*" in 1873, from the farm to the plot in the new cemetery, and no record was kept of this transfer Upon the tombstone there appears the following inscriptions

"Here Rest the Remains of
"John Baker, M D Surgeon Dentist
"Born in England
"Died in New York 24th Sept 1796"

On the reverse side

"He left his Farm
"in the City upon the East River
"For the Support of the Scholars of Trinity School "

Around the base of the stone

"Erected by the Corporation of Trinity School in Memory of its
"Great Benefactor, A.D. 1874 "

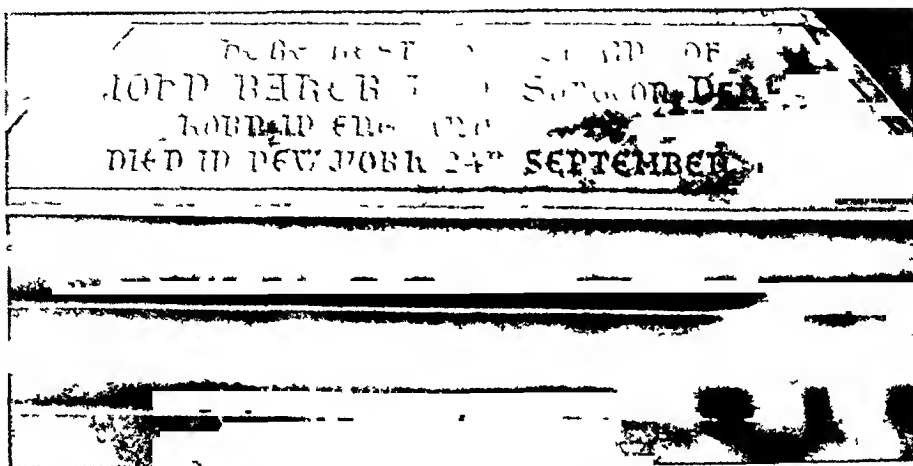


Fig 36—Inscription on the tombstone of the grave of John Baker, M.D., Surgeon Dentist

As one enters the Trinity School, he likewise will find, on the right-hand wall, a very large white marble tablet suitably inscribed to John Baker—"in memory of its great Benefactor"

References

- 1 Chapter III Fig 9
- 2 Baker's advertisement, dated April 28, 1768 Fig 30
- 3 Chapter VI Paul Revere p 115
- 4 Chapter XI Josiah Flagg p 195
- 5 Manchester and others state "Burton" County as it was spelled in Baker's will should read Bruton County
- 6 Stokes, I N Phelps The Iconography of Manhattan Island 1478-1909 New York, 1922
- 7 Weinberger, B W The First 100 Years of American Dentistry *Dent Items of Interest*, 1934, 56 859

Manchester, H H The First Dentist in America *Dent Digest*, 1925, 31 162-166
 Idem—Dr John Baker *Dent Digest*, 1925, 31 460-464
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Dent Items of Interest, 1943, 65 581

CHAPTER V

ROBERT WOOFFENDALE (1742-1828)

Surgeon Dentist and Author

In the *History of Dental and Oral Science in America*, it is stated ¹

"In October of the year 1766 there arrived in the United States from England Mr JOHN [sic] WOUFFENDALE This gentleman was (for that time) a regularly educated dentist, having been instructed by Mr Thomas Berdmore, dentist to George III He is the first dentist so called and practicing as such of whom any record can be found as having visited this country Mr Wooffendale commenced practice in New York soon after he arrived He also practiced in Philadelphia But, either because he did not receive sufficient practical encouragement in his profession, or from some other unexplained cause, he returned to England in March, 1768 While here he constructed an entire double set of artificial teeth for Mr William Walton of New York, which is believed to be the first recorded full set of teeth inserted in America From the time when Mr Wooffendale returned to England until some years after the Declaration of Independence there was not, as far as can be discovered, a regularly practicing dentist in this country "

The author of the foregoing statements seems to have had the unfortunate tendency of drawing upon his imagination for his data—a method which in poetry or fiction may be exhibited to the best advantage, but which in historical writing is inexcusable, and too prevalent in the writing of dental history ² In the first place, Wooffendale was not the earliest to proclaim himself a dentist in New York, second, his name was not John, third, though he did return to England, he did not remain there permanently, fourth, there were a number of other practicing dentists in the country all through the revolutionary period

Robert Wooffendale, spelled originally Woffendale, was born at Sheffield, Yorkshire, England, in the year 1742 There he spent his youth, received a good education, and at the age of twenty years he visited London, entering the employ of Messrs White & Gipps, apothecaries, with whom he remained three years, during which time he obtained considerable practical knowledge of the business While there, his position and profession often brought him in contact with Thomas Berdmore, the dentist of George III of England

A
T R E A T I S E
O N T H E
D I S O R D E R S A N D D E F O R M I T I E S
O F T H E
T E E T H A N D G U M S,
E X P L A I N I N G

The most rational Methods of treating their Diseases.

Illustrated with Cases and Experiments

By THOMAS BERDMORE,
Member of the Surgeons Company, and Dentist in
Ordinary to his Majesty.

A NEW EDITION WITH ADDITIONS

Dente quid horridius nigro, quid pulchrius albo?

L O N D O N

Printed for the A U T H O R

Sold by BENJAMIN WHITE in *Fleet-Street*;

JAMES DODSLEY in *Pall-Mall*,

And BECKET and DE HONDT in the *Strand*

MDCCLXX.

Fig 37 — Thomas Berdmore, one of the outstanding representatives of the early dental art in England. The Latin quotation, as well as other material, was used by Benjamin Fendall, throughout his advertisements.

Thomas Berdmore was well educated in his profession, and the most eminent representative of the dental art in that country. Before him, no one had had the appointment of dentist to the royal family. In the year 1768 he published his excellent treatise,³ which went through many editions and was translated into various languages (Fig 37). In 1844, seventy-six years after the first London edition, an edition appeared in Baltimore—a splendid proof of the lasting worth and fame of this

work. In this book, Berdmore, who approved of replantation, took a firm stand against transplantation, which he never tried. He suggested that those who desired this operation should employ another practitioner "who practises the same and is skillful in doing so".⁴ He considered as the principal advantage of the application of single artificial teeth the support they afforded to the neighboring ones. Before he definitely inserted a gold filling Berdmore thought it wise to try the tolerance of the tooth with a temporary filling of cement or some other like substance.⁵

The frequent business meetings of Wooffendale and Berdmore resulted in the former receiving instruction in dentistry from the latter in 1765, after the pupil first executed a bond of £500 sterling currency, with the stipulation that he should not practice the profession in London, or within fifty miles of the same, during the life of his preceptor. His apprenticeship to Berdmore was of short duration, not exceeding twelve months. At that period dentistry was not cultivated as a profession of learning, nor were its teachings based on scientific deductions or conclusions, but was considered in an artistic light, and was taught as other callings were, by displaying the processes themselves. This fact, together with the advantage acquired through a limited knowledge of anatomy, surgery, and pharmacy, obtained while employed as an apprentice apothecary, may offer a sufficient explanation for the short term of Wooffendale's apprenticeship.

Robert W'offendale,

SURGEON DENTIST, lately arriv'd from London, (who was instructed by Thomas Berdmore, Esq, Operator for the Teeth to his present Britannick Majesty) begs Leave to inform the Public, that he performs all Operations upon the Teeth, Gums, Sockets, and Palate. Likewise fixes artificial Teeth so as to escape Discernment, and without Pain, or the least inconvenience.

N B May be spok'e with at his Lodgings, at Mr John La-boyteaux, at the Golden Ball, betwixt the Fly Market and the New Dutch Church, from the Hours of nine in the Morning to six in the Evening.

45 48

Fig 38—Robert Woffendale's (as he first spelled his name) advertisement in the *New York Weekly Journal*, November 13, 27, 1766, and February 12, 1767

During July or August of 1766, he left London to visit Sheffield, where he disposed of some real estate which the death of his father had placed at his command, and on the 14th of September of the same year he sailed from Falmouth for New York, in search of a location where he might exercise the duties of his profession. On the 30th of October he arrived in New York, and by November 13 he had inserted in the *New York Journal or General Advertiser* the notice reproduced in Fig 38

This was again repeated on November 27, and on February 12, 1767 he stated that he would leave New York on the 26th of that month. Wooffendale, however, remained in New York about five months. On the 3rd of April, 1767 he visited Philadelphia and remained until the following November. On April 6, 1767 he inserted the advertisement, reproduced in Fig 39, in the *Pennsylvania Chronicle*.⁶

On the 22nd of June, 1767, he added the following

"Robert Wooffendale, Surgeon Dentist (at Mrs Hunt's, opposite Mrs Roberdeau's, in Second-street) From the Encouragement he has received from the Public, thinks it necessary to stay some Time longer in this City. He performs all operations on the teeth, gums, and sockets, likewise fixes in artificial teeth, so as to escape discernment, and without the least inconvenience."

ROBERT WOOFFENDALE,

Lately from LONDON, but last from NEW-YORK,
SURGEON DENTIST, (who was instructed
by THOMAS BERDMORE, Esq; operator of the
teeth to his *Britannic Majesty*) begs leave to in-
form the public, that he performs

All operations on the teeth,

gums, and sockets, likewise fixes in artificial teeth,
so as to escape discernment, and without the least
inconvenience

N B He may be spoke with at his lodgings at
Mrs Hunt's, opposite Mr Roberdeau's, in Second-
street Philadelphia April 6, 1767

Fig 39 —Wooffendale's Philadelphia advertisement *Pennsylvania Chronicle*, April 6, June 22, 27, and November 12, 1767

This was followed by another on October 28 in the *Pennsylvania Chronicle*. On November 2 and 9, in the *Pennsylvania Chronicle and Universal Advertiser*, this postscript appeared: "As he intends going to England the latter part of next week, he returns Thanks to the Public for their favor."

He evidently changed his mind when he reached New York, according to the *New York Weekly Journal*, for on December 10 and 17, 1767, and January 21, 1768, he again resorts to the newspaper. He stated that he had returned from Philadelphia and was "now residing at Jamaica (Long Island) but will attend at New York every Thursday." This same advertisement appeared on January 21, 1768 in the *New York Postboy*.

His short stay in both New York and Philadelphia, might indicate that he did not meet with much professional success, although, in each of those cities, he had made favorable impressions on some few who had employed his services. On his return to New York, he met with an opportunity to display his skill, as William Walton, Esq, employed him to construct a double set of artificial teeth, which was carved from the

ivory of the hippopotamus. This specimen of dental mechanism fully sustained the highest expectations of Mr. Walton, and "was thought to be a wonderful triumph of genius, and seemed to him in return a set of teeth festooned with 1084 lbs,—the natural inheritance of Miss Stephenson, the niece and adopted daughter of Mr. Walton. On the 17th of September, 1767 Mr. Wooffendale and Miss Stephenson were united in marriage by the performance of the usual ceremony by the Rev. Mr. Achmuty."⁷



Fig. 40.—Set of Ivory Dentures made by Robert Wooffendale about 1768, undoubtedly like the set made for Mr. William Walton. (Reproduced here by courtesy of the Baltimore College of Dental Surgery, University of Maryland.)

In consequence of the sparse population, and as only a limited number of residents permitted themselves to indulge in the luxuries or comforts which necessity did not dictate, novelty, such as Mr. Wooffendale offered, brought little financial return. Hence he definitely determined to return to England, and sailed with his wife the 25th of March, 1768, on board the brig *King George*. He then took up his residence again at Sheffield, his native place, and opened an apothecary shop, practicing the profession of dental surgery at every opportunity.

In 1775, having disposed of his interest in the apothecary, he removed with his wife and family of five children to Liverpool, and devoted his attention exclusively to dentistry. He resided there for a period of fourteen years, making occasional professional visits to York and Manchester. While there, he wrote a book on the practice of the profession, entitled *Practical Observations on the Human Teeth*, which was published in London during 1783 (Fig. 41). This volume, as a work of practical value, was superior to any, except Beidmore's *Treatise*, that had appeared up to that time in the English language and it is generally included as a part of America's contribution to dental literature, the first published by a practitioner in this country.

P R A C T I C A L

O B S E R V A T I O N S

O N T H E

H U M A N T E E T H.

By R. WOOFFENDALE,
SURGEON-DENTIST, LIVERPOOL.

L O N D O N,

Printed for J. JOHNSON, N^o. 72, St. Paul's Church-Yard,
and Messrs. RICHARDSON and URQUHART, Cornhill.

M D C C L X X I I I

Fig. 41 —Wooffendale's (a pupil of Berdmore) contribution to English dental literature, and generally attributed as the earliest by an American

The opening sentence in the book gives some idea of the popular understanding of dentistry at that time "Whatever relates to the teeth is so little generally known and understood that every attempt to elucidate the subject as the direct result of practical knowledge, must have its use" As a whole, his book is of particular interest to us, as it gives an excellent idea of what must have been the status of dentistry when it was introduced into this country. It explains to the public the teeth,

then diseases then care and the methods of practice A few chapters are included here in this historical study

"Of Lancing the Gums of Young Children

"According to the bill of mortality, the deaths in London, from the 15th December, 1778, to 14th December, 1779, were 20420, out of which number 7261 were under two years old, which is considerably more than one-third of the whole number that died within that time The above observations respecting the first teeth, may, in some degree, account for the death of so large a proportion under two years of age, although, no doubt, many out of this number died of other diseases

"Of the Teeth, from Three to Six Years Old

"During this period, in general, little attention of the dentist is required, except frequently to examine the double teeth, which are very subject to decay, and which should be filled, or stopped with gold, as circumstances may indicate

"From three years old, children should be taught to brush their teeth and gums with cold water, and to rinse the mouth with it afterwards, morning and evening, which practice ought to be continued through life P 6-7

"Of Stopping Decayed Teeth with Gold

"In the last observation, I have mentioned stopping the teeth with gold For several years after I practised, as a dentist, I used lead for this purpose, but I frequently observed the lead, used in stopping a tooth, either by myself or others, to be in a corroded state in a short time after the stopping had been performed To account for this circumstance, I considered, that lead, when exposed to an acid, soon corrodes, and then becomes poisonous As the use of vinegar and other acids in the food are so common, and as it is well known that people are often troubled with acidities in the stomach, which frequently rise into the mouth, the lead used in stopping teeth, is, I apprehend, corroded,* in which poisonous state it must frequently be carried into the stomach, to the detriment of health I do not mention this as necessarily and always happening where lead is used, I have seen teeth that have been stopped with it for several years, to appearance, not altered, but as this may not frequently be the case, I think it safer to use gold

"There is another reason for using gold for this purpose, which, although of much less real importance than the above, yet may with some be thought sufficient to give it a preference, and that is, when a tooth is stopped with lead, it generally looks black and like a decayed tooth, allowing the lead to remain unaltered and not corroded as above-mentioned, but when stopped with gold, it always looks well, and of its natural colour

"The stopping of decayed teeth with any metallic substance, is sometimes objected to, because it does not always stay in through life

*The lead in this case partakes and becomes of the nature and quality of white-lead which is well known to be highly poisonous when taken into the stomach The process in making white-lead is similar to this under our consideration as it is the corrosion of lead by the means of vinegar"

I have observed that some teeth decay in such directions that no method can be used to prevent a farther progress of the decay, and that some which are decayed and stopped with gold, when the greatest attention, both with respect to time and care, in the operation, either in the first or second set of teeth, cannot insure success. But as the operation is generally performed without the least degree of pain, and with a great probability of success, I always recommend it, when practicable, as many decayed teeth, when stopped, are as serviceable through life, as if they had not been decayed. To succeed in this operation, much depends upon the skill and care of the operator, for if the tooth is not stopped so completely as to prevent not only the smallest portion of food, but even the residuum of the saliva, from getting into the caries, or faded part, such tooth will decay faster than if it had not been stopped at all. Many teeth begin to decay with several holes at once in each tooth, particularly the large grinders, so that if one, or two, of these holes only are stopped, and the others omitted when in a proper state, the holes which are not stopped will, each of them, decay just the same as if the others had not been stopped, by which omission, very little benefit is obtained, therefore all the other holes ought to be stopped, as soon as they will admit of it.

"If a decayed tooth is stopped with gold, as completely as possible, and the person cracks nuts, or such like hard substances, with the teeth, that part of the tooth which was stopped will be liable to break, by which the stopping will come out. The cracking of nuts, or other hard substances, is known frequently to break sound teeth, therefore, no wonder it should break those that are stopped, and in a state less capable of enduring such violence (p 8-11, inc.)

"People who live in northern climates are less subject to have decayed teeth than the inhabitants of warmer climates. Although it may be observed that both good and bad teeth may be seen in all climates, it would be understood, that the teeth are more sound in general in cold than warm climates. Those who live in large towns in this kingdom, have their teeth decayed more frequently than they who live in the country, which may be accounted for from the air of large towns being much warmer than in the country, the inhabitants likewise indulging more in warm liquors. For example, tea, twice a day, drunk hot, undoubtedly is detrimental to the teeth. The inhabitants of towns also live more upon animal food than those of the country, and it has been proved, by experience, that corrupted animal food is more destructive to the teeth than vegetable food in the same state (Footnote p 13.)

"Of Offensive Breaths

"It is not uncommon to see the teeth of some persons nearly covered with a slimy, mucous substance, of a green, black, or yellow colour, which is one cause of offensive breath, and which frequently is the case when there is not one decayed tooth in the mouth that can occasion it. This is to be remedied by having the teeth properly cleaned by a careful dentist, and using daily, a brush dipped in water, (if the person is ill, warm water may be used, but not else)

and afterwards in a proper dentifrice,* with which the teeth are to be brushed

"Another cause of offensive breath, is, decayed teeth, the food, in mastication, lodging in the crannies, or hollows, and not being removed until it becomes putrid. Were these hollows, or crannies, stopped, as mentioned in page 8, or filed, cut, or scraped (should the crannies be so formed as not to admit of stopping), in such a manner as might enable the person to take out any lodgment that might be formed there (and which he could not remove, till such operation was performed), he might then prevent such future lodgments, and by that means avoid an offensive breath, from this cause

"It may not be improper to observe, that a decayed tooth is seldom, if ever, offensive of itself, it is the lodgment of food in it that makes it so, and which lodgment, also, occasions its farther decay. I have frequently seen people with every tooth in the mouth decayed, who, by having the necessary operations performed, and paying proper attention themselves to cleanliness, have had the breath free from any disagreeable smell, to which they had before been subject. If the breath is offensive from any of the above causes, the methods here set down will be sufficient to keep it sweet, if properly put in practice

"I have been informed, that some dentists will promise that a child shall have a fine set of teeth, provided they have the entire cure of them at a proper age. I believe no person who has the entire cure of a child's teeth, can prevent the above-mentioned stunted, indented, and discoloured appearance of them (except early inoculation will have that effect, and that within two months after birth). Or, if the teeth are small, that is, narrow, the breath not being in proportion to the length, or have a yellowish, or dark coloured enamel, it will not be in the power of anyone, safely, to alter them. Any person that will make such a promise, I apprehend must be ignorant, of his profession, or destitute of honour and integrity. There are people who are readily caught with such promises, or many other specious improbabilities, who will pay little attention to many things founded on reason, experience, and plain matter of fact

"It will be proper for a dentist to examine the teeth every month, at least, from six to twelve years of age. It may not be necessary to perform any operation on the teeth every time he sees the child, but, by this means, the different disorders will be duly watched, and proper methods used to check them on their first appearance

"The most material time, to be particularly attentive to the teeth, is, from six to twelve years old. Little or no attention is paid to the teeth, in general, till sixteen, seventeen, or eighteen years of age, and sometimes much later, when, it often takes some time to stop the ravages such neglect has caused. Daily observation, for several years, convinces me, that the human teeth, of the second set, are most liable to decay soon after they make their appearance,

* Dentists have in general various preparations under the title of dentifrice tooth-powder electuary etc etc which for many reasons they preserve as secrets and each no doubt recommends his own. I have a preparation of that sort (dentifrice) peculiar to myself which I have used for many years and as it has always answered my utmost wishes I hope I may stand excused recommending it for this purpose p 15-18

that every succeeding year they acquire a solidity, which causes them to be less subject to decay, and that, in general, if they can be preserved sound, or, if decayed, from penetrating to the nerve (which in general may be done), till the twentieth or twenty-fifth year, they rarely decay afterward, having, by that time, acquired so solid a texture, as to resist, in a great degree, the action of putrid food, the general decayer of the human teeth. When a tooth first becomes painful from a caries or decay, after this time of life (the twentieth or twenty-fifth year), it does not happen in consequence of a sudden decay within a few weeks or months before the pain is perceived, but to its decaying generally between the age of six and fourteen, but, most commonly, between six and ten, at which time, the teeth sometimes decay a little, and, without even any care, go no farther for five, ten, or twenty years, and so on, to seventy or eighty years of age, or upwards, but at any of those periods they may give pain, by the exposure of the nerve, from a disposition, at the time, in the tooth so decayed, to extend the caries, or mortification, to the nerve. I never saw an instance of a tooth giving pain as soon as it began to decay. The front teeth seldom give pain when they decay, at any period, when they do, it is generally from the inflammatory toothache. P 41-44

"Of the Tooth-Ach

"The tooth-ach may be divided into the different kinds of inflammatory, common, rheumatic or nervous, sympathetic, and from denudation. P 51

"Of the Common Tooth-Ach

"When the nerve is exposed, a small bit of lint, dipped in the oil of cinnamon, cloves, turpentine, or any chemical oil, frequently gives relief, and if repeated for some time, often destroys the nerve. P 66

"Of the Rheumatic or Nervous Tooth-ach

"I give this name to one species of tooth-ach because it generally resembles the rheumatism, or a nervous pain, more than pain occasioned by a tooth. This kind of tooth-ach frequently causes considerable pain in the temple, ear, tongue, and one side of the head, and in the muscles of the neck, shoulder, arm, and breast, and it is not uncommon for the pain to extend over the whole head, both sides of the neck, both shoulders, arms, and the whole breast and stomach. At this time the teeth often do not appear to be the cause of pain, being the freest from it of any part of the head. These pains sometimes come at stated periods, and observe the same regularity in going off. At other times, when they begin, they will continue a week, ten days, or more, almost without intermission, and then subside entirely for a fortnight, or longer, but return again as before. Some people during the attack of this disorder, complain of a stupor and giddiness in the head. This complaint has frequently been treated as nervous or rheumatic, with such medicines as are generally administered for those complaints, for a length of time without effect. I would, in this kind of tooth-ach, always recommend the extraction of the offending tooth, when discovered. It is not uncommon for a small portion of the root of any tooth, but more

particularly the double ones to cause this pain. When the offending tooth is drawn the pain sometimes ceases in a minute afterwards, but generally continues several hours, frequently two or three days, sometimes a week or fortnight, and two instances I have met with, both of them in young ladies, where the pain did not entirely subside for a month after the tooth was out, but in every case, when the pain once goes off it never returns afterwards, except from some other tooth, which is cured by its being removed. I would not have it understood that I apprehend there never are rheumatic or nervous pains in the head or those pains above-mentioned, without being connected with, or dependent on the teeth, I am confident that people are frequently affected with rheumatic and nervous pains in those parts, and were any, or all the teeth in the head to be drawn, the patient would not be in the least relieved by such practice. It appears to me, that those who have had pain the longest after the tooth is taken out, are they who have had it also the longest before the extraction, the adjoining and sympathizing parts, having been frequently and long irritated, require some time to recover their former tranquil state. The teeth which are most commonly affected with this disorder, are the dentis sapientie, which seldom appear sooner than fifteen years of age. If proper attention is paid to this kind of tooth-ach I believe a dentist will seldom or never be deceived with it, if he is a man of application and attention—absolute and necessary requisites in a dentist.”

From the above paragraphs it is not difficult to conclude that some of our early pioneers were able to observe general conditions as they arose, that they had more than a fan knowledge of the teeth, that they played a part in relation to general health, and that they too were contending with many of the problems we have as yet been able to solve.

Wooffendale, meanwhile, during the year 1789, learned of the death of Berdmore, his preceptor. This event absolved him from his bond, and he prepared to make a visit to London. On his arrival in London, Mr. Wooffendale found such encouragement and the inducements offered by the former patrons of Mr. Berdmore so desirable, that he determined to settle there. Accordingly he rented a fashionable house in Dover Street, Piccadilly, near St. James Street and the King's Palace, to which he moved his family. His professional start in London appears to have been marked with unparalleled success. His professional popularity with the most fashionable and aristocratic circles of London was most flattering to his ambitious aspirations, and it was while he practiced there that he had tendered him through Lord Southampton, the appointment of dentist to the Prince of Wales. This honor, however, he declined.

Wooffendale again decided to return to New York, and on the 25th day of July, 1793, he placed his wife and eight children on board the ship *Factor* bound for New York, where they arrived during the following September. Soon after the arrival of the family in New York, they settled on a farm, rented by the eldest son John, about fourteen miles

from New York, near the town of Jamaica, Long Island Wooffendale remained in London about one year after his family sailed for America, engaged in closing his practice preparatory to joining his family, which he did during the year 1795 Soon after his arrival, he again opened an office in New York, and commenced the practice of dental surgery After practicing here for two years he turned his practice over to the care of his eldest son, John, and retired to his farm

His wife died at Jamaica, Long Island, December 13, 1808, aged 66, and in the account book of Aaron Van Nostrand,⁸ Sexton of Grace Episcopal Church of that village, there are the following entries

"Mar 15, 1801 Mr Wooffendale, Ann, your daughter "

"Dec 14, 1808 Wooffendale, your mother "

Robert Woofendale, as he spelled his name toward the end of his life, died on the 3rd of October, 1828, aged 87 years, leaving by his will (*N Y Lib* 62 p 361) his dental instruments and the case containing them to his son, John A second son, Robert, lived in Dayton, Ohio, a daughter, Ann, died March 14, 1801, aged 25, and the others who survived him were Martha, of New York, who long conducted a young ladies seminary in Brooklyn, Mary Eaken of New York, and Elizabeth of Ramsage, England To Martha he gave five shares of capital stock of the *Eagle Fire Insurance Company of New York* His remains now rest in a grave just beside the Chapel in the *Grace Episcopal Churchyard*, Jamaica, Long Island

Woofendale's published work evinced anatomical knowledge, and his practice was guided by physiological deductions He wrote "I am aware that, by making public the various circumstances relating to the teeth, and the operations to be performed on them, and of exposing some of the impositions and deceptions too often used, I shall draw upon myself the malevolence of ignorant pretenders to the dentist's art To these I have nothing to say Men of that profession, of liberal minds, will not want an apology as exposing the various means used for imposture in the profession, as it appears the most likely method of fixing it on a more solid and liberal foundation than has yet been done "

It may be safely asserted that Robert Woofendale, deservedly, is to be regarded as perhaps the best practical dentist of his day, and the references which contemporary writers made regarding his opinions bear like testimony His name must ever be held in high esteem in the history of the profession in this country, as an early pioneer, as the second dental practitioner in America and in New York, and as the first in the city of Philadelphia

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CHAPTER VI

PAUL REVERE (1735-1818)

Contributor to Medical-Legal Identification

COLONIAL engraver, gold and silversmith, pioneer in America of copper-plating and of making copper spikes for ships, dentist, patriot and founder of the Revere non plant, immortalized by the poet Longfellow for his "Midnight Ride," Paul Revere earned well the reputation his name enjoys today "In the history of our country there are possibly few men who were as versatile or as universally capable, mentally or digitally, as Paul Revere, a genius produced at rare occasions"¹

As an engraver, he made portraits of Adams and Hancock In 1775 he engraved the plates, made the press, and printed the bills of paper money ordered by the Provincial Congress of Massachusetts Many of his illustrations of Boston and Colonial war episodes, as well as his caricatures and the coins which he designed and engraved are to be found in various historical societies As a silversmith, he designed and created some of the most beautiful gold and silverware ever made in this country He continued to follow this occupation after the war, but at the same time he manufactured cannon ironware and church bells Of the latter, a few are still in use in the old churches of New England His entries in his famous day book which is preserved in the *Massachusetts Historical Society*, and which this Society generously permitted me to examine, show that he was often engaged in several occupations at the same time At one time he served as proprietor of a hardware and general merchandise store

Our interest is mainly concerned with "Paul Revere—the dentist," and it is from this point of view that he will be considered here The first record of importance is his advertisement in the *Boston Gazette and Country Journal* dated Feb 4, 1765, which reads as follows

"Just published and to be sold by Josiah Flagg and Paul Revere in Fish street at the north end of Boston, a collection of the best Psalm-Tunes in two three and four parts, from the most celebrated authors, fitted to all measures and approved by the best masters in



Fig 42 —From a painting by Gilbert Stuart, now in the *Boston Museum of Fine Arts*
(Reproduced here by permission of Mr E H R Revere)

Boston, New England To which are added some hymns and anthems, the greater part of them never before printed in America
Set in score by Josiah Flagg, engraved by Paul Revere "

Curiously enough he tried his hand at a set of notes for the Psalms The early association of Revere and Josiah Flagg, Sr. developed into a friendship between the two, which later may have had some influence on the entry of Flagg's son into dentistry This will be considered in Chapter XI It was Benson J Lossing, the historian, in 1888 who first called our attention to Revere as a "dentist"¹ He wrote "Paul Revere

was educated in his father's trade as a goldsmith, and established himself in that trade, that Paul Revere practiced the art of prosthetic or operative dentistry devoting some time to delicate mechanisms."

The advertisements of Revere, found in the *Boston Gazette* of August 25, August 29, September 5, 12, December 19 and December 26, 1768 and April 14, 1769, are the earliest records which convey to us his interest in the so-called dentistry of that period, and which inform us that John Baker was his preceptor. This announcement will be found as Fig 10, p 23

ARTIFICIAL-TEETH

Paul Revere,

TAKES this Method of returning his most sincere Thanks to the Gentlemen and Ladies who have employed him in the cure of their Teeth, he would now inform them and all others, who are so unfortunate as to lose their Teeth by accident or otherwise, that he still continues the Business of a Dentist, and flatters himself that from the Experience he has had these Two Years, (in which Time he has fixt some Hundreds of Teeth) that he can fix them as well as any Surgeon Dentist who ever came from London, he fixes them in such a Manner that they are not only an Ornament but of great Use in Speaking and Eating. He cleanses the Teeth and will wait on any Gentleman or Lady at their Lodgings, he may be spoke with at his Shop opposite Dr. Churk's at the North End, where the Gold and Silversmiths Business is carried on in all its Branches.

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Fig 43 —Paul Revere's notice in the *Boston Gazette* that he continues the business of a dentist, June 30, July 30, August 13, 1770

John Baker, as we have already shown, began to practice dentistry in Boston prior to 1766, and continued there until April of 1768. One can easily see that Revere, just 33 years of age, did not lose much time taking over the practice of his instructor, Baker. In two years' time, Revere did not consider himself a dentist, as shown by his next advertisement in the *Boston Gazette* for June 30, 1770, (Fig 43), which was again repeated on July 30, and August 13. This appeared but three times and then ceased. No further newspaper announcements by Revere are to be found thereafter, though his diary included entries until 1774.

It is curious that in neither of these notices did Revere designate himself a dentist in the opening statement, as most of his contemporaries did. His modest assertion that he "continues the Business of a Dentist," together with the knowledge that he practiced but a few years, leads us to believe that he himself did not feel qualified for operative work,

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CHAPTER VII

ISAAC GREENWOOD, SR., OF BOSTON (1730-1803)

THOUGH many before have written about Isaac, Sr., and of the other Greenwoods, much of it we find is erroneous, therefore it is our intention to present new material relating to one of the most interesting and important families in early dental history, by piecing together information culled from unpublished manuscripts and letters written by Isaac John Greenwood from the notes by his father, John

In 1839 it seems Dr E Bryan had access to the manuscript of the *Revolutionary Service of John Greenwood*, for in the *American Journal of Dental Science* (Vol I, pages 73, 97 and 113), he prepared a short history of the role Greenwood played in the defense of his country. The record of events during the years 1775-1783, were written by John Greenwood during the year 1809, and rewritten and annotated by his son, Isaac John Greenwood just before his death in 1865. Though ready for publication at that time it was not until 1922 that his great grandson, the late Joseph Rudd Greenwood, had it published.

We were indeed fortunate to locate two unpublished and unknown manuscripts, one entitled "*The Portraiture of Washington, including an account of such relics of The Great Patriot, as Preserved in the Greenwood Family*" prepared by Isaac John in 1862, and another, "*Stray Notes on Dentistry in America*" collected by him in 1859, but rewritten by the son, Isaac John Greenwood, in 1902. Besides the manuscripts there are several letters of the latter which throw considerable light on the Greenwood family and their interest in dentistry. In the possession of the Misses Eliza and Mary Greenwood are many more important documentary statements and letters which they have graciously permitted me to examine, and have since presented to the *Library of the New York Academy of Medicine* (1937), others in 1942 to the *New York Historical Society*.

A few words relative to the parentage of Isaac Greenwood, the first native-born dentist, may not be amiss. His father, Isaac, (1702-1745) was the first Hollisian professor of Mathematics and Natural Philosophy in Harvard College, Cambridge, having previously served as Chaplain on board Admiral Montague's flagship. "He was afterwards called upon

to preside over the congregation of the Old North Church, Boston" Professor Isaac Greenwood was the son of Samuel (1662-1721) and Elizabeth (Brinsdon) Greenwood, and the grandson of Nathaniel (1634-1684) a young shipwright who came to Boston before 1654. Nathaniel was the eldest child of Miles Greenwood, "woisted weaver of Norwich, England, and according to family traditions, a lieutenant and preacher under Oliver Cromwell. Miles' father, also named Miles, was married in 1599 in the Church of St. Peter's of Mancroft, to Ann Scoth of Barnham Broome" ¹

It has generally been stated ² that Josiah Flagg was the first native-born American dentist, but this claim is not well founded, and from records consulted, it can be stated definitely that Isaac Greenwood antedated Flagg by many years.

Isaac Greenwood, Sr., was born in Cambridge, Mass., May 9, 1730, and resided for some time prior to the war on the East Side of Salem Street, the garden of his house adjoining the Second Episcopal, or Christ Church. Little of his early life is known, except that he studied mathematics under his father and served an apprenticeship with Deacon Thomas, mathematical instrument-maker of Boston, preparing himself to follow that trade. He is said³ to have constructed the first electrical machine made for Benjamin Franklin in Boston, but there is no evidence among Franklin's diaries, account books or letters to confirm this statement. In fact, everything points to disprove it, though in an article that appeared in the *New York Star* November 10, 1837, this information is repeated. "The first electrical machine which Franklin used, he had made at Boston by old Mr. Isaac Greenwood, mathematician, son of Professor Greenwood of Harvard College, and father of the late John Greenwood, dentist of this city." Mr. George Simpson Eddy, an authority on Franklin, writes in a letter ⁴ "We do have Franklin's own statement that Philip Syng of Philadelphia did some work on the machines which Franklin used, Syng was a clever silversmith and an intimate friend and neighbor of Franklin, and made experiments on his own account as well as in company with Franklin. Franklin himself was a very ingenious mechanic, and, in all probability, did much of the work on the machines himself, certainly he devised them."

In another unpublished manuscript,⁵ written by Isaac John Greenwood in 1828 and presented to the *New York Academy of Medicine* by the Misses Eliza and Mary Greenwood, the following note is found: "Isaac Greenwood of Boston practiced dentistry when Franklin was a young man and was intimate with him."

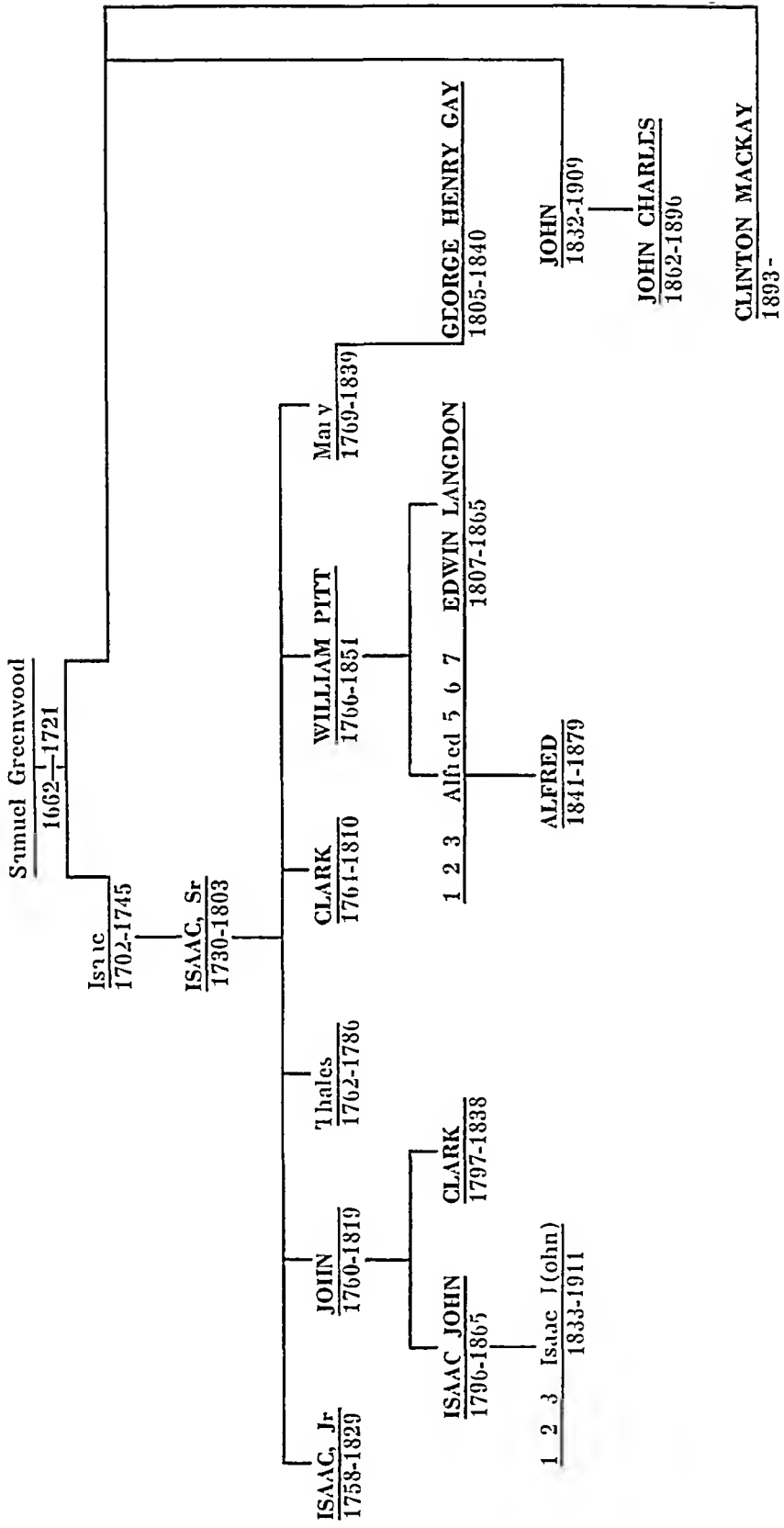
Greenwood did not confine himself at first to his duties as an instrument maker, but was also a wood and ivory turner, as well as an importer of hardware and a manufacturer of "umbrellas, kitisolas (or sunshades), a new invention for the ladies" and later, a dentist.



Isaac Greenwood

Fig 44 —From a painting by William Lovett and reproduced by courtesy of the Misses Greenwood and *The Frick Art Reference Library*

GENEALOGY OF THE GREENWOOD FAMILY



Through these generations, there can be found the names of many physicians, as well as many well-known artists, judges and clergymen. Those who practiced dentistry were in heavy type.



Fig 45 —Mary (Pans), wife of Isaac Greenwood, Sr, 1726 1820 From a portrait by William Lovett, and reproduced by courtesy of the Misses Greenwood and The Frick Art Reference Library Now owned by The New-York Historical Society

On January 21, 1757, Isaac Greenwood was married to Mary Pans, who was "born apparently in some Irish Garrison town in 1725, and died at Dedham, Mass, Oct 11, 1820, aged ninety-five years, having survived her husband by seventeen years" From this union there were born six children, Isaac, (b Oct 13 1758, d Oct 21, 1829), John, (b May 17, 1760, d Nov 16, 1819), Thales, (b Dec 24, 1762, d 1786 in San Domingo, West Indies of yellow fever, in the arms of his brother, Isaac), Clark, (b March 8, 1764, d Feb 15, 1810), William Pitt, (b May 10, 1766, d May 10, 1851), and Mary, (b May 27, 1769, d Nov 6, 1839)

Isaac Greenwood, Sr, was the first of a long line of dentists, probably exceeded in number only by the Parmlys⁶ After him came his sons Isaac, John, Clark and William Pitt, the son of his daughter, Mary, George Henry Gay, (b December 5, 1805, d June 28, 1840), the sons of

John Isaae John, (*b* July 17, 1795, *d* May 14, 1865) and Clark, (*b* September 19, 1797, *d* May 6, 1838), the son of William Pitt Greenwood Edwin L., (1807-1865), and the son of Rev Alfred Greenwood Alfred, (1841-1879)

There were also John, the son of John Danfoit Greenwood, M D, for many years the head of Nelson College, and an early settler at Motueka, N Z, (1832-1909) and his son, John Charles Greenwood, (1862-still living in 1933) of Wanganui, I New Zealand Dr J D Greenwood's grandfather, John Greenwood, was an artist, a mezzo-tinter, who left Boston before the Revolution and eventually settled in London, he was the first cousin of Isaae Greenwood, Sr There are some direct descendants still in active practice to this day, namely, one Clinton MacKay Greenwood, of New York City, 1893-

Exactly when Isaac Greenwood, Sr, first devoted himself to dentistry is impossible to determine In a letter addressed to Dr Edward C Kirk (1856-1933), dated July 21, 1905, and turned over to me many years ago by Dr Kirk for any light it might throw on Greenwood's activities in dentistry, Isaae J(ohn) Greenwood wrote "These dentists used to come from England or France—and return after making a tour of the principal towns One of these, named Baker, left two able successors in Boston, who had picked up his ideas, or else received actual instruction from him, and as the art required only gumption, knack and perseverance they set up for themselves as native artists, they were the gold and silversmith Paul Revere, and my great grandfather Isaac Greenwood, Sr The time was about 1763" This date is certainly too early to be considered, as may be seen from newspaper advertisements of that time

The foregoing details are of interest as evidence of the pronounced influence of the Greenwood family upon American dentistry, the principal source of its activity arising from John Greenwood of New York The earliest advertisement that can be found of Isaac Greenwood, Sr, is that in the *Boston Gazette* of March 29, 1769 This trade announcement, later having the familiar umbrella cut added to it, is to be found in the same newspaper of August 10, 1772, and May 17, 1773, and one finds it reappearing every now and then up to the year 1778 (Fig 46)

For the years 1778 to 1780 no advertisements are to be found It is in the *Continental Journal & Weekly Advertiser* (Boston) of April 20, 1780 that we find what undoubtedly was Isaac Greenwood's first dental announcement Lost between his general wood turning statement and the making of "artificial leggs and hands" is the following "Ladies, wax rots your Teeth and Gums throw it away Come and have your Teeth cleansed, and if done in time, saves them from rotting and parting from the Gums" One learns that Greenwood's dental experience at that time was very limited This same notice was repeated in the same paper on June 14, 1781

UMBRILLOES

Made and Sold by ISAAC GREENWOOD, Turner,
at his Shop in Forestreet, next Door to Dr. Clark's,
North End, Boston, at the following Prices, viz

NEAT Mahogany Frames up'd with Ivory or Brass
Petrils at 40s Old Tenor, an Inferior Sort at 30s
a Piece, and cheaper by the Dozen; neat Lutestring or
Mantua Silk Umbrilloes at 4 Dollars, Persian Dittoes
from 2 to 3 Dollars a Piece. Those Ladies whose In-
geniue, Leisure and Oeconomy leads them to make their
own, may have them cut out by buying the Sticks or
Frames of him. Ladies that choose them made, may
have them done on reasonable Terms.

N B Gentlemen may be supply'd with neat Hickory
Walking Sticks, with Ivory or Bone Heads, Fises, Bil-
liard Balls and Tacks, and many other Things in the
Trade, cheap for Cash.


Fig. 46—Isaac Greenwood, Sr.'s first trade advertisement. *Boston Gazette* March 29, 1769



Gentlemen and Ladies

that may want Artificers of Teeth,
may have them made and fixed
in the neatest manner, without
the least pain by ISAAC GREEN-
WOOD, Ivory Turner, at his
house in the Market Street, be-
tween the Old South and Seven

Star Lane, at the South End of Boston, may
help the Speech as becoming as the natural ones.

 Ladies wax rolls your Teeth and Gums thro'
it away. Come and have your Teeth set, and
if done in time, saves them from rotting and parting
from the Gums.

N B Said GREENWOOD continues to make
Artificial Leggs and Hands Turned in Ivory,
Bone, Silver and Wood. Makes Fises, German-
Flutes, Hautboys &c &c


 Ladies please to send your Umbrilloes to be
mended and cover'd

Fig. 47—Isaac Greenwood, Sr.'s first dental advertisement. April 20 to June 8, 1780
Continental Journal and Weekly Advertiser

It is unwise to try to establish definite dates and facts from news-
paper advertisements only. This is especially true when they relate to
the Greenwood family. John Greenwood once wrote⁷ "precise dates
alone appear to have been forgotten," and these, so far as possible, are
now supplied. A good example of inaccuracy is the one that appeared
in the *Weekly Museum*, New York, for January 28, 1792, in which John

Greenwood states "he has regularly acquired the art and skill of a dentist from his father who is well known for thirty years"

Later, when we take up the life history of John Greenwood it will be shown that this statement cannot be correct so far as his having served under his father. We have likewise seen that the date relating to Isaac Greenwood's taking up dentistry, 1762, cannot be correct, and evidence will be presented to show that about 1778 was the year he began his practice.

In order to arrive at a definite conclusion, all of the following facts must be taken into consideration. John Greenwood, in his *Revolutionary Services*, on page XX relates the following: Isaac Greenwood of Boston "carried on the business of ivory-turning and, as an adjunct to the same, the profession of dentistry, much after the profession of his friend Paul Revere, the goldsmith." NB "They both learnt the method from Mr John Baker, a London surgeon-dentist." This statement, one will see, likewise appears in the letter previously quoted. Here undoubtedly is the basis for the 1762 date.

Among Paul Revere's papers and ledgers in the *Massachusetts Historical Society*, one finds the following items relating to Isaac Greenwood:

"Sept 6, 1762 By Balance of acct 0/11/4 p 11

"Feb 1 1763 To a D of thimble 0/10 p 16

"Jan 11, 1765 To my acc of sundry's £4 54 p 25

"By his account £4 54 Thursday, settled with
Mr Isaac Greenwood & Passed Receipts


"Feb 22, 1774 To engraving two case heads 0 9 4"

From Baker's life story one finds that he left Boston for New York in April of 1768, and as Greenwood fails to mention his new interest until some twelve years later, it hardly seems possible that the latter could have received instruction from him. Had he studied under Baker, Greenwood like Revere would have undoubtedly included such a statement in his advertisements.

Paul Revere's record likewise shows that he almost immediately, in 1769, took over Baker's practice, and as both Revere and Greenwood had had business relations as early as 1762 it is more likely that the latter received some dental instruction from the former, and at the time Revere relinquished "the business of a dentist", Greenwood apparently continued what little practice the former might have had. Thus the date of Greenwood's entry into dentistry is somewhere around 1778. From our present evidence we therefore find that Isaac Greenwood could hardly have obtained dental instruction from John Baker, but instead from Paul Revere and that the year 1778 is more apt to be correct than 1762, as generally mentioned.

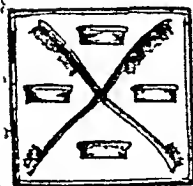
[illegible]

Fig. 48 — Business card of Isaac Greenwood, Sr., of Boston. From an original print made by Paul Revere in February, 1774. Here we find no mention of dentistry, a further confirmation that the 1762 date is incorrect. (Reproduced here by courtesy of the *American Antiquarian Society of Worcester, Mass.*)



Greenwood,

DENTIST, No 49, Marlborough-Street,



A CQUAINTS the publick, that he continues to perform the necessary branches of that art, carefully and faithfully — Removing every substance tending to destroy the Teeth and Gums — Cures the Scurvy in the Gums, makes the Teeth white, &c Sells BRUSHES that are suitable for the Teeth, with a POWDER that never fails to recommend itself, at 1/4 per box — Fixes NATURAL TEETH on plates of gold or silver, with gold springs, if wanted — Also, substitute ARTIFICIAL TEETH, of different substances, from 2/ to 6/ each — that give a youthful air to the countenance, and render pronunciation more agreeable and distinct — In a word, both natural and artificial are of such real service, as are worthy the attention of every one — He with pleasure attends on those who may incline to employ him, provided they cannot conveniently attend on him, at his House, where he has every accommodation necessary for their reception

At the same place may be had,



Oil, Silk, and Ladies' UMBRELLAS, cheap — Old Umbrellas repaired, oiled, newly covered, &c — Oil silk Caps for bathing — German Flutes, Fifes, Violins, and Strings for ditto, Reeds for

Fig 49 — Portion of a handbill of Isaac Greenwood, Sr, prior to May 3, 1788, used as a receipt for violin strings (See Fig 53) (Courtesy of the New York Academy of Medicine)

It would seem that Isaac, Sr, followed many of the ideas of his son John, for we find him later repeating them in his own advertisements. He also adopted John's and Flagg's method of informing the public of his dental ability, by using handbills or broadsides. A part of one of these, we now have in the Academy's Library, though undated it must have been prior to his moving to 19 Marlborough Street in 1788. Isaac used this portion, (Fig 49), to receipt a bill for violin strings in 1789 (See Fig 53)

Isaac J(ohn) Greenwood in his letter to Dr Kirk further remarks "The business at that time was purely a mechanical one, so far as supplying the loss of human teeth, and touched only on the border of surgery

in lining a gum or removing an aching tooth with a strong twist of the turn-key. It was some time before attention was given to saving the teeth by 'plugging or 'filling. He (Isaac Sr.) could draw the scrape and clean plug if necessary and carve out of sea-horse tusk an artificial, stained (sealing wax covered) gum work with teeth. After a while whole sets were made the upper and lower mandibles being united at the back by two semicircular spiral springs. The height of the dental art then was to have these springs so adjusted as to give the least inconvenience and remain in place.

Isaac Greenwood's office was first at 49 Marlborough between Milk and Seven Star Lane or Summer St. with the Old South Church on the corner. In the *Columbian Centinel* for April 27, 1785, Greenwood told of the 'success he has experienced in the dental art. In May, 1788, (*Massachusetts Centinel*) Greenwood moved to 19 Marlborough where he continued to practice up to May 1795. Until then he carried on his mercantile store along with his dental practice.

Isaac Greenwood was the earliest of our dental practitioners to adopt a dental slogan and to conduct newspaper campaigns in an endeavor to educate the public. This he began in the *Massachusetts Centinel* May 3 1788 when he suggested a cooperation of dentist, patient and physician. "Advise with your physician" he states, likewise he "would attend on those who found it inconvenient to come to him" (Fig. 50.)

At this early date he seems to have understood the value of teeth and their relationship to better health, for on May 27, 1789, in the same newspaper he warned "Delays are Dangerous. Attend to your teeth and preserve your health and beauty and them from decay" (Fig. 51.)

He also introduced the tooth brush in his advertisements pictorially, as Flagg did a few years later. In this same notice, as in the one a year earlier, he began to handle "electrical machines, with apparatus for experiments and medical use." This would indicate that he did not enter the electrical field until late in his career, and that he probably did not make the machines himself, for he would surely have mentioned that fact as he did in his advertisement that appeared in the *Columbian Centinel*, May 14, 1796. "also at the above Manufactory—Electrical Machines and Medical apparatus made and repaired also a variety of Turned Work, in ivory and wood. NB Electrical Machines, with Medical apparatus to let." He advised the public that he "fixes natural teeth on plates of gold and silver, with gold springs." This was two years after the same announcement by his son, John.

ISAAC GREENWOOD,

DENTIST,

ACCQUAINTS the publick, that he has REMOVED from N^o 49 to N^o 19, Marlborough Street, opposite Messrs AINSWORTH'S Store where he continues to perform the necessary branches of that art, carefully and faithfully Removing every substance tending to destroy the Teeth and Gums. Cures the Scurvy in the Gums, makes the Teeth white, &c Sells BRUSHES that are suitable for the Teeth, with a POWDER that never fails to recommend itself, at 1/4 per box Fixes NATURAL TEETH on plates of gold or silver, with gold springs, if wanted Also, substitutes ARTIFICIAL TEETH, of different substances from 2s to 6s each—that give a youthful air to the countenance, and render pronunciation more agreeable and distinct—In a word, both natural and artificial are of such real service, as are worthy the attention of every one He with pleasure attends on those who may incline to employ him, provided they cannot conveniently attend on him, at his HOUSE, where he has every accommodation necessary for their reception

At the same place may be had,



Oil, Silk, and Ladies' UMBRELLAS, cheap Old Umbrellas repaired, oiled, newly covered, &c Oil Silk CAPS for bathing, German Flutes, Fifes, Violins, and Strings for ditto, Reeds for hautboys, Men, Boxes and Dice for back gammon, Chessmen, Billiard Balls, Ivory Combs, a variety of Canes, by wholesale and retail, Cane Strings, Whips, electrical Machines with apparatus for experiments and medical use—artificial Magnets, &c &c &c

N B Said GREENWOOD offers his service to electrify those who stand in need of that almost universal remedy, at 1/6 each time, at his House

☞ Advise with your physicians MAY 3, 1788

Fig 50 —From *Massachusetts Centinel*, May 3, 1788, in which Greenwood, in type, recommended that patients *advise with your physician*, also fixes natural teeth on plates of gold or silver with gold springs

The advertisement of October 21, 1789, clearly shows that Greenwood was a clever salesman, and that he knew how to appeal to the public At this time he apparently was not devoting his entire time to the dental profession, although he did omit any reference to his mercantile business, (Fig 52), in some of his advertisements

DELAYS ARE DANGEROUS.
*Attend to your teeth, and preserve your health and
 beauty and them from decay.*



Isaac Greenwood,
 DENTIST, No 19, Marlborough
Street.

PERFORM Every operation on the Teeth and Gums, tending to preserve their ease, beauty and preservation.

Those persons who wish to preserve their teeth, and those who have had the misfortune to lose any, may, by applying as above, depend on his exertions to merit their approbation. His charges are low, to give every one an opportunity to receive benefit of him. He with pleasure waits on those (at a trifle more expense) who cannot conveniently attend at his house—where there is every accommodation for their reception.

Brushes, Dentrifice, and tooth Powder, proper for the teeth and gums

At the same place may be had,



A variety of Umbrellas, by wholesale and retail, as cheap and neat as in any part of America. Old ones soiled, repaired and covered—oil silk Caps for bathing.

A variety of Musical Instruments, viz. Clarinets, Hautboys, Flutes, Fifes, Flagelets, Violins, &c—

Best Roman Violin Strings.

A variety of walking Sticks, Canes and Whips. Small, oval and round Picture Frames, made to any model. Oval and round ivory boxes for miniature pictures. Billiard Balls, Ivory Combs, Dice, Chess-men, &c


Electrical Machines, with Apparatus, for experiments and medical use.

Cash given for IVORY.

May 27.

Fig 51—Advertisement of Isaac Greenwood, Sr, in which the use of the toothbrush and pots of dentifrices were first displayed, 1789. This same cut was used by John in 1790 *Massachusetts Centinel*

LADIES and GENTLEMEN,



WHEN decorating
yourself with the or-
naments of dress, *examine your*
TEETH, and if you find them
deficient or disordered, apply to

I. Greenwood,
DENTIST,
No. 19, MALLBOROUGH-STREET, *Boston,*
Whose practice is universally approved of, and
who will exert his utmost abilities, to heal every
disease, and make good every deficiency—so as
to render them not only the most brilliant orna-
ments that can be exposed to view—but of such
use as to afford you **REAT** satisfaction. OCT 21.

Fig 52—Type of attractive advertisement to draw the public's attention to dentistry. Here one finds only a dental notice with no accessories. *Massachusetts Gazette, 1789*

Mr Rich^d B Gleave Boston March 12th 1789

Bought of Isaac Greenwood
one Dozⁿ Strings for Violⁿ and Bass

and Bill

Received of
Isaac Greenwood

Fig 53—Greenwood's receipted bill for violin strings, March 1789, showing that he was not at that time confining his entire time to dentistry. (Courtesy of the *New York Academy of Medicine*)

Just how long Greenwood continued in active practice, we have not been able to ascertain. In the Directory of 1795 Isaac Greenwood is found on Garden Court, and in May of that year he stated he was moving from 19 Mallborough Street, to the North Square. In 1799 there appeared the names of only three dentists in the Boston directories: Isaac Greenwood, Old North Square, his son, William Pitt, opposite the head of the Mall, and Josiah Flagg. This last notice appeared again in the *Columbian Centinel* on April 10 and September 18, 1790. His final record as a dentist is to be found in the *Massachusetts Mercury* of December 20, 1796.

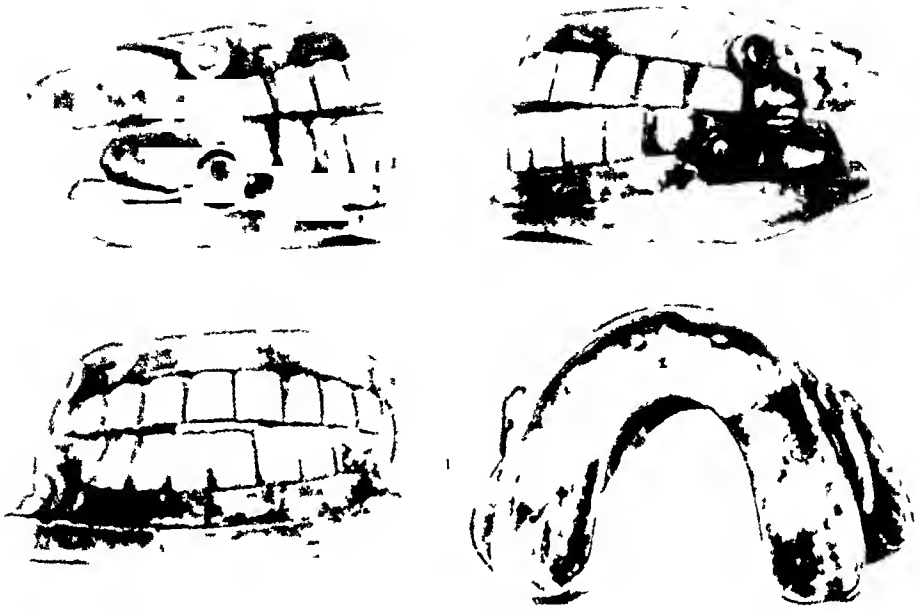


Fig. 54—Ivory dentures made by Isaac Greenwood, Sr., of Boston in 1799. The ivory being riveted upon a base of lead composition. (Reproduced here by permission of the *Harvard Dental School*.)

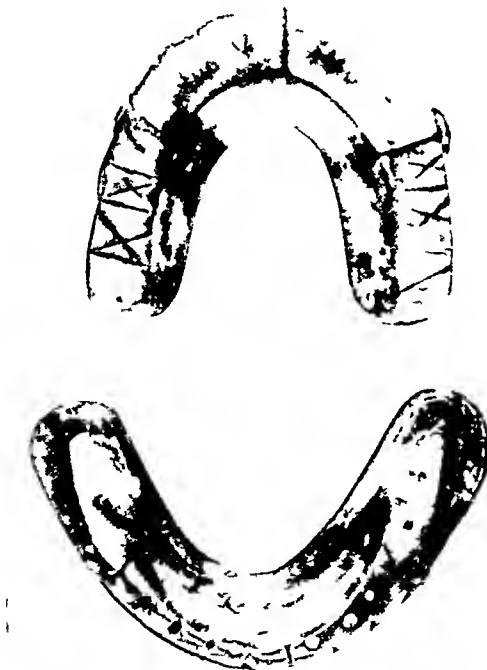


Fig. 55—Top views of the same denture, Fig. 54

Greenwood died on October 18, 1803, aged 73, in Dedham, Mass., having moved there with his wife and daughter in 1800, and built a cottage upon a lot leased from the Episcopal Church. In writing to his son he says "as to our situation, etc., Mr Bull will inform you. I wish you could see it. I feel very happy in it—and when I reflect on the happy situation all my children are in, and how much more favored I am than many that I know, I call to mind what I learned in my youth,—what shall I render to my God for all his gifts to me—I have nothing to render but a contented mind." His portrait painted by Lovett, a Boston artist, about 1791, "represents him sitting, half length, full face, with a rolled wig, at his left elbow a copy of Hunter on *Human Teeth*, the forearm extended and bowed spectacles swinging at the end of his fingers."

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CHAPTER VIII

JAMES (JACQUES) GARDETTE (1756-1831)

UP to now, we have seen that those men practicing dentistry in Philadelphia were mainly itinerants stopping off for a few weeks or months as they traveled from city to city. In April of 1781, there arrived from New York one Jacques later Anglicized to James, Gardette who continued to practice in that city for over a period of forty-five years. He came to this country with a knowledge of dentistry, backed by experience and with the training of the surgeon of that day.

Gardette was born on the 13th of August 1756, in Agen, Department de Lot et Garonne, France. His father died when James was just a lad, and little is known of his early life except that following his father's demise he was brought up by his paternal uncle, Blaise Gardette, who held the office of prosecuting attorney until an advanced age. James received an ordinary academic education in a provincial town. In 1773 he was sent to Paris to study anatomy and surgery, remaining there two years as a student at the Royal Medical School. His knowledge was considered to be complete after a course of eighteen months in the Hospital at Tours, then passing the regular examination at Bayonne, by the surgeons of the Admiralty, he received a commission as surgeon in the French navy. In the discharge of his official duty, the vessel in which he served came to America in 1778, and shortly after his arrival, Gardette is supposed to have resigned from the Navy. He had previously received some instruction in dentistry in Paris as a necessary part of his naval preparation, from Louis Laforgue and M. Le Roy de la Faudiniere, dentists in high repute. At that same time he studied such works in dentistry as he could obtain, among them those by Fauchard and Bourdet.¹⁻⁷

According to Emile B. Gardette (1803-1888), who prepared the biographical notice of his father for Chapin A. Harris' *Dictionary of Dental Science, Biography, Bibliography and Medical Terminology* 1849,⁸ (this same notice was privately published by James' daughter in 1847 as a pamphlet of 22 pages, and appeared also in the *American Journal of Dental Science* v. 1 N. S. No. 3, April 1851), he sailed from France in October, 1777, on the brig of war *La Barquaise de St Jean de Luz*



Your very obedient servant
Jas. Gardette

Fig 56 —Reproduced here by courtesy of the Baltimore College of Dental Surgery,
University of Maryland

destined for Boston and should have arrived at Plymouth early in January. Frank Gardette related further:

The love of liberty and popular movement throughout France which brought so many young Frenchmen to the United States at the period of our Declaration of Independence had no small influence in governing the course of Mr. Gardette. He made a cruise of four months during which an engagement occurred with two British ships lasting three hours and a half and in which there were several killed and wounded on board the vessel of which he was the surgeon. This seems to have terminated his official duties and connection with the French navy from which he resigned intending to adopt this country as his home. When the French fleet and army arrived at Newport he was induced to visit that town and commence practice as a dentist the officers affording him congenial and considerable occupation for a short time.

We will have to take it for granted that James' son had some definite proof of the date and circumstances relating to his father's arrival in this country and of his visit to Newport. A thorough search of material concerning the French officers and men who served in that war has failed to reveal his name amongst them. Neither does the name appear in Stone's list of French combatants published by the French Government in 1903 or in Daniel's nor can my trace be found in the archives or papers of the various Rhode Island Historical Societies nor was he listed amongst the French officers residing in Newport¹¹¹ during the winters he was supposed to be there. James Gardette also has been credited with having been made a Major General in Lafayette's Army, but there is no confirmation of this statement. We are led to believe that he was not in Newport during those years. However, the late Dr. William S. Sherman (d. 1934) of Newport in a letter sent to us, wrote as follows:

"In regard to Gardettes leaving the Navy—he left before the French expedition under deStung [de Stung] came to Rhode Island. We cannot expect to find him in any official Navy list. His son located him in Boston, Newport, New York and finally in Philadelphia.

"Rhode Island saw much of the French during the Revolution. The Battle of Rhode Island was fought August 29th, 1778, and the first fleet under deStung was very active here during that summer. Newport became the headquarters of Rochambeau who arrived with an army of six thousand in 1780. The force remained in camp here and nearby places until the battle of Yorktown in 1781. The following winter, 1781-2, we find them in Providence. It seems natural to find him among his countrymen. I think probably he joined with others in the early conflict. We had many crises of which there is no record. We also know that many volunteered for a short term. Hundreds returned to their lines of work almost overnight. I have had many conversations concerning Gardette, especially in regard to his teaching Josiah Flagg, with my old friend, Dr. Eben Flagg. I graduated under Dr. J. Foster Flagg, who was born in Providence,

R I in 1828, and who spent half of each year in Newport with his uncle, Dr Henry Jackson Dr J F B Flagg was J Foster Flagg's father He practiced in Providence about 1825-40 or a little later So the whole family was from Newport and Providence"

In checking up Emile Gardette's biographical sketch,^s a number of inexplicable inaccuracies have been found On page 21 of the pamphlet the author stated

"His want of familiarity with the English language seems to have made him diffident about publishing his views or improvements in his profession, and it was not until 1827 that he was induced by his friend, the late Dr James Mease (a liberal and warm friend of the Arts and Sciences), to furnish an article for the *Medical Recorder* on the *Transplantation of the Human Teeth* the first, and we believe, the only publication that bears his name This paper, occupying seven pages of the periodical referred to (January, 1827), goes to show the impracticability and injudicious character of the operation, and exhibits a sound and sensible theory, with some original suggestions"

It is surprising that the interesting and instructive article by James Gardette, published in *The American Museum*, Philadelphia 1790, Vol VII, pp 266-68, and entitled *Remarks on the Diseases of the Teeth*, written thirty-seven years before the one alluded to by his son, has remained either forgotten or hidden all these years It is even more remarkable that it was unknown to him¹⁵ Besides this article there is another heretofore unknown and unmentioned On September 19, 1788 the editor, Mr Goddard, of the *Maryland Journal & Baltimore Advertiser* was requested "to please give a place, in your useful Paper, to the following observations on the propriety, or rather the necessity, of taking care of the teeth,—and you will oblige, your obedient servant, J Gardette" This appeared as an editorial on p 3 of the above issue

Gardette's professional career can be followed fairly accurately from 1783 In the fall of that year he was practicing in New York with little success Unfortunately no newspaper advertisements of the time offer any information concerning him or his activities in this city As Le Mayeur was actively engaged during that time in dental practice, and as both were of French descent, it must be taken for granted that they came in contact with each other here, and not in Newport as other historians have related Though his son wrote that Gardette began to practice in Philadelphia in June 1784, we find that Gardette had already settled there early in April, according to a series of advertisements which appeared in the *Pennsylvania Journal & Weekly Advertiser* and continued until 1796

"Mr Gardette

Surgeon-Dentist, lately from Paris

Begs leave to inform the ladies and gentlemen that he makes artificial teeth (which imitate the natural) from a single tooth to whole set, and places them, without the least pain, so regular, that it is impossi-

ble to distinguish them from the natural ones, and in such a manner, that the persons may take them out and fix them upon themselves with the greatest ease. He can place them over stumps of the person do not chuse to have them drawn. He also takes the scale, or tartar from the teeth without pain, and renders them (by help of a powder that he uses) as clean and as white as ever.

As he proposes to settle in the city, and to perform on very reasonable and moderate terms, he hopes to recommend himself to the notice and confidence to which he has occasion for his assistance, and wishes for an opportunity to make himself as extensively useful in his profession, as he flatters himself his abilities entitle him to expect.

He has a large pole, with at the east side of Front Street, half way between Race and Vine street, where the Wax Works is kept.

And if any Lady or Gentleman wishes to have him come to their house, he will be ready to wait on them on the shortest Notice.

This was again reported on July 28th in the *Pennsylvania Journal*, etc.

It will be seen from the foregoing that Gardette intended to make Philadelphia his future home, probably influenced as much by the fact that that city contained a large contingent of his French confreres, as by the knowledge that at that time it was the commercial center, and the metropolis of the country. Here he found such practitioners as Andrew Spence, Hamilton, Le Moyne, McBeth, McGinnes, Baker, Claborn, Gilliams and many others who had preceded him.

Gardette first began his practice on Front Street, half way between Race and Vine. In 1785 he moved to Pear Street below 3rd, and it was on the 11th of October of that year that he took the oath of allegiance. In 1791 he was at No. 88 Chestnut Street. In 1793¹⁶ his office was at No. 75 Walnut Street, between Dock and Third, on the north side, which was the most fashionable part of the city. He moved to the corner of Ninth and Chestnut Streets in 1818, where he remained until his retirement from practice in 1829, when he returned to France, to revisit the scene of his early life. Gardette commenced the practice of dentistry at a time when the profession in this country was but a few steps beyond the business of the "tooth-drawer" and the "bleeder." Like the rest of his confreres, he took occasion to visit the surrounding cities. He was in Baltimore in the fall of 1788, as on September 16 he was practicing on Market Street, opposite South Street. Between 1784 and 1788 he interested himself in "regulating the dentition of children," for in an announcement in the *Maryland Journal & Baltimore Advertiser*,¹⁷ he added that information. Though he intended to remain a month according to another notice on October 3, he was still in Baltimore on October 24. He left there about November 14, 1788, being "obliged to go to Philadelphia, to fulfill some engagements he had there," but he again

returned on January 5, 1789. His practice continued to grow, for on March 31 he announced that he would be obliged to remain another eight or ten days.

Gardette returned to Philadelphia in April, and in August we find him again in New York, where he was located at No. 22 Beekman Street, near John Greenwood,¹⁸ who was then at No. 56 William Street, corner of Beekman.

On January 1, 1790, he again visited Baltimore. Just how long he remained there is not certain. His next announcement appeared in the *Federal Gazette* of Philadelphia, September 14, 1790. On January 23, 1792, he wrote: "In order to prevent persons from calling several times, he would in the future be at home every morning until eleven o'clock," while in the same journal of November 12, 1792, he complained that as "many mistakes having been made by servants leaving verbal messages, he will be obliged to those who may require his assistance, to send their messages in writing." In the *Federal Gazette* for October 10, 1796, he advertised for a runaway negro.

Gardette remained in practice in Philadelphia until 1829, a period of forty-five years. Here he enjoyed the friendship of many eminent physicians of that day, among them being Benjamin Rush, Kuhn, Mease, Shippen and Wistar, who "befriended and encouraged him by such aid and courtesy as were due to his correct professional views, and his education and manners as a gentleman. Gardette devoted himself attentively to the pursuits and improvement of his profession, and acquired no unenviable reputation and skill in its various departments."⁸

His son, Emile, wrote of his father as follows:

"The difficulties which the dentist had to contend with were manifold, he was dependent chiefly upon his own judgment and inventive genius for his success, and that, too, for the benefit of patients who, in many instances, had but little confidence in the operations of dentistry. Instruments were very defective, and not to be had in this country, and even the materials which were recognized as appropriate for professional use could not be obtained short of Paris or London. Among the improvements introduced into the practice of dental surgery by Mr. Gardette, whether in the way of instruments or operations, some few, at least, have been identified with his name, and we cannot better show the estimate placed upon them than by the following extract from the Minutes of the '*John Scott Legacy for the Encouragement of Useful Inventions in the Arts and Sciences*':

"1822—To James Gardette, dentist, for three mechanical improvements in his profession, which are highly commended in Europe and in the United States, and for a simple lever instrument for the easy and expeditious extraction of teeth and stumps of teeth, awarded a medal 'to the most deserving,' and twenty dollars.

"The above 'award of merit' is the highest permitted by the will

of John Scott who left the fund (estimated we believe to the city in trust) for the object proposed.

This brief and cursory record the nature of the mechanical improvement is satisfactory account is all we are able to discover from the archive transferred into the hands of the Franklin Institute. But we think we can enumerate most of the inventions which the profession owe to Mr Gardette without injustice to others.

He was the first Dentist who substituted the use of elastic flat gold bands or braces in the place of ligatures of silk or fine gold wire for securing artificial teeth when attached to the living ones.

He invented the manner of mounting natural teeth which consist of a gold incisive plate to which the teeth are secured by means of gold pins and which permit the tooth to rest upon the gum instead of the gold plate.

He was the first to apply the principle of suction or atmospheric pressure for the support of entire sets of artificial teeth dispensing with the use of partial springs and endless contrivances then in use much to the inconvenience of those who wore them."

Upon examining these claims one finds that Gardette's son was in error when he gave credit to his father for certain "firsts." Surely he was not the first to use elastic flat gold bands or braces in the place of ligatures of silk or fine gold wire. This method was employed as far back as the Chinese period of 700 B.C. as we have shown in *Ancient Dentistry in the Old & New World* also in Vol. I.

1801
March 11

Mr. Rodriguez
To Jas. Gardette, D.D.

Oct 1 tooth ~	\$ 1.00
April 16 th Mod ^o R plug'd 1 tooth filed 3 teeth	5.00
June 29 th - 7 th Oct 2 teeth y ^g all ^o done several times -	5.00
July 30 th Ext 2 fangs of tooth 1 tooth, done	~
William of attendance ~	4.00
Received March 1 st 1808 the above	\$ 15.00
in full for Jas Gardette J. J. Gardette	

Fig 57—Receipt signed by Gardette for professional services, 1802 (Collection of William Trueman)

As to Gardette's use of the first "gold mortise plate" we have been unable to locate in any of his early articles or newspaper announcements, prior to 1800, anything that would indicate such a method, and the date usually given as 1787 is far too early for this type of "plate." This date is based upon the statement found in the *American Journal of Dental Science*, 1st series, Vol X p 63, which reads "It is probable, too, I should infer, that the first gold plate sustaining artificial teeth, made in America, was adapted by Dr Gardette, the one he cites having been constructed by him about sixty-seven years ago." We have the set of teeth made for Washington by John Greenwood in 1796, which is now preserved in the *Baltimore, College of Dental Surgery*, and which proves that John Greenwood used this method before 1800, as well as Greenwood's advertisement of November, 1786, stating "he fixes them (teeth) upon gold."

Emile Gardette continues ⁸

"It is a well authenticated fact, that Mr Gardette successfully maintained sets of artificial teeth for the upper jaw on the principle of atmospheric pressure, as early as 1800."

"We have heard him relate the following anecdote of the chance which led to this important discovery. He had furnished, for the second time, an entire set of upper teeth (enameled Hips), for Mrs A M'C, and owing to the short time the first set had lasted, under the action of the saliva, he suggested that this set should be left much heavier. In order that the tongue should become accustomed to this increased bulk, necessarily contracting the limits for its free movements, the lady was desired to keep the new piece in her mouth as much as possible, during a few weeks, but not expecting her to use it for purposes of mastication or speech until the usual springs should be attached to it. Mr G promised, at the end of the period named, to call and arrange the piece for permanent use.

"It was then still the custom for the dentist to attend at the houses of his patients, and a busy season caused months instead of weeks to elapse, when Mr Gardette called again with an apology for neglect, his pliers and springs ready, he requested Mrs M'C to bring the artificial pieces. She replied, 'I have them in my mouth,' much to the astonishment of her dentist, with whom she had been conversing with her usual facility. She stated that at first they were a little troublesome, but she had become accustomed to them now, and they answered every purpose as well without as with springs, and she was glad to dispense with them. The principle upon which the artificial piece thus adhered to the gums, at once suggested itself to his mind, and suction, or atmospheric pressure, was henceforth depended upon in numerous cases of the same kind.

"Nor were his improvements less important in the cure of diseases to which the teeth and gums are liable, he was the early advocate, if not the first who recognized the wisdom, of affording space for the healthy and good arrangement of the teeth by judicious extractions in youth. He believed, and his long experience proved,

* See the remarks under *Longbothom* p 72

that he thus observed a great cause of decay arising from lateral pressure when the circle of the jaw is too narrow for the number and size of the teeth to permit their regular and easy arrangement.

He was one of the earliest dentist who adopted *gold foil* instead of *leather* as the best material for filling teeth, and related often that he had twice prepared gold foil for his own use from Dutch ductile when no gold better way to be found in this country or at a moderate rate who could furnish dentists filling gold. (This statement is not correct as already shown under Baker and Hogg.)

As an eye doctor Mr. Gardette displayed great judgment, care and dexterity. While he exhibited no misplaced or morbid sensibility inconsistent with the best performance of his painful professional duties.

In the mechanical department of his art his work excelled discrimination and good taste as well as originality. His artificial pieces of a period when no aid was to be derived from *Dental Technology* displayed all the good workmanship and finish which are the result of mechanical skill and patient industry.

His practice was characterized by the one strong motive of *good to his patient* and not less by the liberal and benevolent feelings which should govern professional life.

His want of familiarity with the English language seems to have made him diffident about publishing his views or improvements in his profession and it was not until 1827 that he was induced by his friend the late Dr. James Mease (a liberal and warm friend of the arts and sciences) to furnish an article for the *Medical Recorder* on the *Transplantation of the Human Teeth*.

James Gardette's Writings

We have already alluded to the two articles of which his son had no knowledge.^{1, 2} The first appeared as an editorial in the September 19, 1788 issue of the *Maryland Journal*.³

¹ Mr. Goddard

Be pleased to give a place, in your useful Paper, to the following observations on the propriety, or rather the necessity, of taking care of the teeth, and you will oblige your obedient servant

J. GARDETTE

² *Baltimore, September 17, 1788*

³ The forming and cutting of the teeth are the work of nature alone, but their preservation generally depends on the assistance of art

⁴ It is not surprising that the cutting and forming of the teeth is not attended to, that neglect is not very prejudicial, but the same cannot be said of carelessness in preserving them. Men naturally attentive to the care of their health, neglect by a singular contrast, that which evidently contributes to it, I mean *the preservation of the teeth*, and that neglect may be attended with very bad consequences for health depends greatly on the digestion of aliment, and digestion depends on that aliment being previously prepared by mastication, which is done by the action of the teeth, and these cannot certainly act well, without being sound and powerful

"It follows, from what has been said, that the teeth are, if not of absolute necessity for the preservation of health, at least of the greatest utility, that it is necessary to take the greatest care of them, and to cure them of the diseases with which they may be affected. Besides, they are one of the beautifullest ornaments of the head, and are absolutely necessary for the agreeableness of the voice, the pronunciation of a discourse, and the articulation of sounds

"The arrangement and figure of the teeth form in the mouth two kinds of enclosures capable of reuniting and modifying the sound of the voice in an harmonious manner, which charms the ear and the senses when the tongue executes its movements, and strikes the air *apropos*. It is by the effect of that harmony that the discourse is more intelligible and more graceful than it would be if the teeth were ill placed, or had considerable spaces between them. Powerful motives to engage those who are obliged to speak in public, and the lovers of music, to take great care of their teeth! To these motives may be joined that of favouring the breast. It is evident, and experience demonstrates it, that sound and well-arranged teeth prevent the air from entering and coming out, in too great quantity and too rapidly, by the mouth, and that they form with the tongue a kind of *barriere* or sluice, which lets the air pass only by measure, by means of which the breast is neither so easily dried or exhausted

"The teeth serve moreover to support the cheeks and the lips, which is not of less importance to the agreeableness of the face, as it is easy to see by the deformity which their loss occasions

"To what extremities are not persons reduced, especially those of the *fair sex*, when they have lost some of their teeth, without having them replaced! They can neither open their mouth, say a word, or even smile, lest they should discover defects, which reproach them with their neglect, in preventing them

"I might here site several other bad effects, which neglect produces, such as offensiveness of the breath occasioned by carious teeth, &c the disgusting colour, and the slovenliness of the teeth. The prospect alone of these defects or negligences afflict us, they must then be prevented, or at least remedied. J. G."

The next article from the pen of James Gardette is to be found in *The American Museum*, Philadelphia 1790, Vol VII pp 266-268²⁰

"The causes of the various diseases to which the teeth are incident, are numerous, both internal and external. Their conformation may be injured, in the earliest infancy. Fathers, mothers, and even nurses may communicate to children scrophulous, scorbutic, or venereal taints, to say nothing of such diseases as the small and chicken pox, the malignant humours of which may operate on the teeth, and produce a bad formation of them

"The air we breathe, especially if it be warm and moist, coarse, impure, or charged with noxious humours—water of a bad quality, greatly vicissitudes from heat to cold, an acrimonious saliva, impregnated with corrosive salts, the portion of aliment which remains in the interstices of the teeth, the different drugs which are used to whiten (often containing acid and corrosive particles, &c) contribute in a great measure, to render them carious, and it is to such caries

they mostly owe their destruction. Though covered with an enamel of a very hard texture, which in some measure protects them, yet the above mentioned circumstances cause them to be penetrated, corroded, and dissolved, if the hand of a skilful dentist do not immediately stop their progress. Sometimes the caries in the enamel penetrates to the membrane which lines the internal part of the tooth, and lays bare the nervous fibres which are there distributed, these being exposed to the action of the air, of the aliment, and other external bodies, insupportable pains are produced, and we are obliged to make a sacrifice of the carious teeth.

‘The tartar which first shows itself under the form of a tenacious slime, and which furnishes the whiteness and polish of the teeth is not a less terrible scourge to them: it is generally the result of vitiated saliva, and of acid vapours which rise from the stomach. At its first appearance, it may be easily removed, but if suffered to continue, the more fluid parts evaporate, and leave behind an earthy and hard crust, which the hand of the dentist is scarcely able to remove, and which if suffered to remain will cause a great variety of diseases. It compresses the gums, impedes the circulation of the fluids, inflames, irritates, and finally destroys them. It prevents the due renovation of the liquids, which stagnating, become corrupted, and prove detrimental both to the tooth and to the membrane which envelopes it. The gums, which were before of a good colour, now become soft, livid, spongy, and overcharged with blood: they generate a corrupt matter, and produce such an offensive smell, as makes our approach disagreeable to all around us. The teeth become painful and loose, the gums separate from them, and leave us no other wish than to be relieved from them as speedily as possible. But this last resource is reserved for desperate cases, when all other means have failed, and even in this case, a skilful dentist finds in his art, what will partly repair the loss, which long neglect and the obstinacy of the disease have rendered indispensable.

‘The present improvements in the profession of the dentist now enable us to substitute artificial teeth, which, far from being attended with any inconveniences, often indemnify us both in utility and agreeableness. To a loose, carious, and irregular set of teeth, it is in our power to substitute another set, which to symmetry unite cleanliness and whiteness—which execute with ease all the necessary motions for mastication and pronunciation—and support the features in that natural form so necessary to beauty. But there is scarcely an operation in the whole scope of surgical art, which requires greater address and sagacity. It is not alone sufficient for a dentist, who wishes to succeed, to possess the mechanical knowledge necessary for the forming artificial teeth with taste, and fitting them with due proportion, but he must be endowed with judgment to give the tooth he substitutes, the size and form of that, instead of which it is introduced, and he must have an experienced and dextrous hand to place these factitious teeth in a solid and neat manner, without giving pain, or he will produce disagreeable consequences, for it must be allowed, disagreeable consequences do sometimes follow, in general these are imputed to the insufficiency of the art, when on the contrary they should be attributed to the incapacity of the artist. Many having been the victims of ignorant dentists, it has been con-

cluded that all operations of the kind are attended with danger, an unjust and precipitate conclusion, which will never be drawn by those who reflect, and know how to estimate talents. From hearing many converse on this subject, we might be induced to suppose, that to permit the steel to approach the teeth would be a certain sacrifice of them, that to have them filled up or filed, is to accelerate their ruin, that to have them cleaned with an instrument, is to destroy their enamel, and diminish their solidity, but these are gross errors, originating in prejudice or ignorance, and amply refuted by experience.

"I do not pretend to say, that to preserve and keep the teeth in good order, it is absolutely necessary always to apply to a dentist, this is a daily care, which every person is capable of taking upon himself, and to perform which a quill tooth-pick, a tooth-brush, water, and sometimes a proper dentifrice may be sufficient, if the mouth were thus daily examined, it would be easy to discover, in their origin, the diseases which attack the teeth, and there would be no occasion to wait, till warned by pain, that we must have recourse to remedies, almost always insufficient when we have delayed the use of them too long.

"But, if the assistance of the dentist be not always wanted, there are an hundred cases in which his care is absolutely necessary—when the teeth begin to make their appearance, or to shed—when they are carious or decayed—when they are covered with tartar—when they become troublesome, by irregularity or looseness—when they are hollow, &c &c—in all these different cases, who but a skilful dentist—a master of his art—will be able to give the necessary suitable assistance?"

That Gardette's efforts to help his patients were not in vain or unappreciated, can readily be seen from the lines addressed to him which appeared also in *The American Museum* of 1790, Vol. VIII Appendix 1 p 4¹⁵

"Gardette! 'Tis thine by study to improve
The bloom of beauty and the breath of love,
To chase from ev'ry cheek distress and pain,
And bid each drooping fawn one, charm again
What tho' the glowing cheek and sparkling eye
Some faint sensations to the heart supply,
Celia but half her wonted charms can boast—
A faded trifle, a degraded toast—
Unless the instrument of eloquence
Through ev'ry's double rows delight each sense,
And to her wond'ring lover's soul impart,
Nature's sweet sounds, attun'd by studious art
Even tho' genious dignify the fair,
Pleasing her words, and elegant her air,
The charms of sound and sense we often slight,
Unless another sense our souls delight,
Unless Arabia's sweets assistance lend,
And ev'ry charm with added grace befriend
Beauty, 'tis known, too oft disgusting grows,

A rapid, scentless, nay, disgusting rose
 Art in no more the fading leaves adorn,
 It withers on its slighted, pitied thorn
 Gardette! Advance in thy delightful art,
 Promote politeness and inform each heart,
 Add (man to charm—and woman to improve)—
 To beauty's bloom the bloom of love "

The most important article by James Gardlette was published in the *Medical Recorder* of Philadelphia for January, 1827,²¹ and was entitled "Observations on the Transplantation of Teeth, which tend to show the impossibility of the Success of that Operation, Supported by a New Theory." It was reprinted in *The American Journal of Dental Science* V X January 1850, No 2 pp 61-71. Dr C F Cushman, in the latter journal commented

"The subjects of it are, the Transplantation of Teeth and the fixation of Teeth illustrated by reports of cases, and I regard it as extremely valuable in affording the enlightened views and vast experience of so distinguished a father of dentistry, as was, emphatically, Dr Gardette. I therefore felt a strong desire to have it preserved in my own library, as well as that the information it contains should be disseminated among the profession of the present day, for I do not know of any other on record, within their reach, that contains similar reports, showing the practical results of the methods discussed."

Gardette wrote

"I shall preface this paper, by informing my readers that I arrived in Philadelphia in June, 1784, and began to practice my profession, and that Mr Lemayeur, with the reputation of an eminent dentist, had transplanted one hundred and seventy teeth in this city, in the course of the winter of the years 1785 and 1786, as he told me himself, at Baltimore, in the fall of the last mentioned year, and that, of all those transplanted teeth, not one succeeded! Some became firm, and lasted, more or less so, for one or two years, in the sockets in which they had been inserted, but those cases were very rare. In the course of my practice, after that time, I had occasion to extract at least fifty of these transplanted teeth—most of them without an instrument, with my fingers only—and to replace them by artificial teeth. Many accidents occurred to the transplanted teeth, while they were growing firm, and some never got firmly fixed in the sockets at all. I shall now relate some cases of that nature, which happened to teeth transplanted by Mr Lemayeur, which, I daresay, will be recollected by some persons now living in this city, and perhaps by relations of the persons who were operated on at the time.

"Of all the transplanted teeth that I ever saw, or heard of, none have lasted so long as those transplanted in the mouth of Mr W H, for they remained very firm for about five or six years, and lasted about as long in a loose state, which increased until the teeth either dropped out, or the gentleman extracted them himself with his own fingers, for I am persuaded they were not extracted by a dentist.

"None of the teeth transplanted by Mr Lemayeur, in Philadelphia, remained firm two years, and in two or three cases which I have seen, of teeth transplanted by other dentists, they did not remain firm one year "

Gardette then described another case and added

"After her arrival in this city, Mrs P consulted Dr W Shippen, who, after examining her mouth, determined that the transplanted tooth should be extracted The doctor sent for, and asked me if that was not my opinion, after examining and probing that part of the socket which could be reached with a probe, I found that the left side of the root of the tooth, as also the socket, were completely decayed to the extremity of the root, which was perfectly adherent to the socket on the right side, the tooth being still very firmly fixed, notwithstanding the existing caries

"I told Dr Shippen that the tooth ought to be extracted, in order to cure or dry up the fistula But there was some difficulty in extracting the tooth without breaking that part of the alveola which was completely ossified with the right side of the root, and which I thought I could avoid, by means of an instrument which I would cause to be made by our old and only cutler, Mr Schively, and which I described to the doctor, as follows, viz the blade in the form of a narrow straight scalpel, thin, and very sharp-pointed

"After having informed the doctor of my intended manner of performing the operation, he approved it At the time fixed by the lady, I operated in the presence of Dr Shippen and a gentleman, a friend of the family, (Mr John Mifflin,) in the following manner

"I separated the adherent plate of the socket from the root of the tooth, with my sharp-pointed instrument, with all possible care, in the space of about two minutes, I then removed the tooth with a straight forceps, with the greatest ease imaginable

"The exfoliation of that part of the socket which required it, and the cicatrizing of the gums, required nearly a month, when I replaced a natural tooth, mounted on a gold plate, after the mode which I had invented about that time, this tooth resembled so perfectly the large incisor which remained, that no person could perceive the difference

"The transplanted tooth being examined after extraction, it was found that one half of the root had been destroyed by caries, longitudinally to its extremity, which proved the absolute necessity of its removal "

Gardette's observations are extremely interesting and they readily show that there were a few men at that time who endeavored to practice their profession with thought and science, for he continued

"It has sometimes happened that a dentist has extracted a sound tooth for a bad one, either by his neglect in ascertaining the tooth to be extracted, or by misinformation from the patient If such tooth is replaced in its socket immediately after extraction, it will certainly become as firm and useful as ever

"All that has been said will prove, I hope, that a tooth taken out of its socket, and put back in its place, will become firm and useful,

therefore, if a tooth taken from another subject, the root of which is of the same shape, length and size, is placed in the socket of the tooth extracted, it will certainly become as solidly fixed as the original one. But the dentist who transplants it must judge that the roots of both teeth are precisely alike in size and shape, before he sees either, that being impossible, the operation can, therefore, not succeed.

"In the year 1801, I was requested to call on Miss B, a young lady of great respectability, who had suffered extremely from pain in a front tooth. I found it was the canine tooth of the left side of the upper jaw which caused the violent pain. I was requested to extract the tooth affected, but I observed to her, that the loss of that tooth would be very great, and that it might be preserved by replacing it in its socket after extraction, and that it would become as firm and as useful as ever. After explaining the manner in which I should perform the operation, she consented to have it done, and I proceeded in the following manner. I extracted the tooth with a straight forceps, cleared the cavity of its carious parts, filled it with gold, washed it in warm water, and inserted it in its socket, all this was done in the space of five minutes. I then requested Miss B to bite a piece of flat cork, (which I had prepared for the purpose,) several times in the course of the day, and to wash her mouth frequently with a slightly astringent liquid, which I prescribed, if I recollect right, the tooth was perfectly firm the twelfth day. That tooth rendered service to the lady for nearly eighteen years, as I extracted it, I believe, seven or eight years since, having become more carious, and therefore troublesome.

"It is to be observed, that it is only the incisors and canine teeth which are attempted to be transplanted, as they have but one root. It is therefore the same species of teeth which I have extracted, plugged and replaced in their sockets, I have performed the same operation frequently in the course of the last twenty-five years of my practice, with the same success as in the case last mentioned. I will, however, detail the particulars of one case, in which the tooth extracted and replaced was a small molar of the under jaw. This operation was performed in the mouth of a lady of this city, Miss —, and I expected complete success, but, on examining the tooth after extraction, I found that the extreme end of the root being bent, (about an eighth of an inch,) remained at the bottom of the socket, notwithstanding the accident, I replaced the tooth in its socket, after having plugged it, in the hope that a callus might be formed, and a junction take place. The tooth was replaced for nearly a month before it became firm, but no kind of inconvenience was experienced, either by inflammation or pain. The tooth lasted in that situation full six years, when it became troublesome and a little loose. I extracted the tooth in the course of the seventh year, the broken piece of the root remained at the bottom of the socket, which healed completely, and has never given trouble from that day to this, although six or seven years have elapsed.

"My opinion, therefore, is, that teeth cannot be transplanted from one mouth into another, so as to answer the intended effect, that is, that the transplanted tooth will not become as firm and as useful as the one which it has replaced, and last as long till destroyed by caries.

or accident The reasons which I give in support of this opinion, are those already advanced, that the root of the tooth which is to replace the defective one, should be of the same length, size and shape of the root of the one which is to be replaced, and that the dentist is obliged to judge of that without seeing either I therefore believe that there are a thousand chances to one, against the success of the operation of transplanting teeth from one mouth into another, if not entirely impracticable "

Gardette and George Washington

For some reason Gardette's son failed to mention his father's services to George Washington There is no record in Washington's diaries or account books which would indicate that Washington ever sought his aid,²¹ but Isaac John Greenwood, in his unpublished manuscript *Stray Notes on Dentistry in America*¹⁸ states "The President gave his patronage to Mr Greenwood and Gardette That was in August of 1789" Gardette remained in New York but a short time and returned to Philadelphia "When, in the winter of 1795-6, sittings were given to Stuart for a second effort by that artist, Washington was wearing a set of teeth recently fabricated by Gardette, with the result that the bulging upper lip is a prominent feature in that portrait"²² Although we have not been able to trace this set as yet, we will have more to say about it, with Peale's comments, when discussing "Washington and his Portrait"

As a practicing dentist, the usefulness of Mr Gardette was much impaired during the latter years of his life, by continued and severe suffering from the gout He had long cherished a desire to return to France and end his days in his native country, but owing to unfortunate investments and various disappointments, this plan was not accomplished until the year 1829 when he had reached the age of seventy-three He found it was too late to realize his pleasant anticipations His native village of Agen, which he revisited, was no longer what it had seemed to his longing heart, during an absence of half a century He took up his residence at Bordeaux, where he did not attain his expected contentment, and in his letters expressed his intention of returning to this country, but before any such design could be carried out, he was attacked by his old enemy, the gout, and died in August, 1831

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CHAPTER IX

ISAAC GREENWOOD, JR (1758-1829)

ISAAC GREENWOOD, JR, the eldest son of Isaac, Sr, (and father of Judge John Greenwood of Brooklyn) was born in Boston, October 13, 1758. He and his brothers attended the North Writing School, where his name may be found on a list of scholars from 1761-1765. He then became apprenticed to his father.

Isaac Greenwood, Jr at the age of twelve, witnessed the massacre of March 11, 1770, his companion, Samuel Maverick, being among the mortally wounded. Four years later he located in Salem, Mass., where he sold "ladies umbrellas"¹

Like his brother John, Isaac fought throughout the War of Independence, and likewise prepared an interesting memoir of his own personal adventures. An extract from the memoir was later published in a New York magazine entitled the *Literary Companion*, August, 1821. In it we find some of his experiences.

"I entered, at New London, on board the brig 'New Broom', a vessel mounting sixteen guns and commanded by one Bishop, and sailed thence on a cruise among the West India Islands. After being out about five weeks the captain became delirious, and in a few days after, owing to the misconduct of the first lieutenant, we were captured by a British sloop-of-war and carried into St. John's, Antigua, where we were all put on board a prison-ship which lay in a cove on one side of the harbor where the heat was so severe as to be almost insupportable. We were allowed here but barely enough to maintain nature, and the water they gave us was taken out of a pond a little back of the town, in which the cattle and negroes commingled every sort of impurity, and which was rendered on this account so nauseous that it was impossible to drink it without holding the nostrils.

"I soon found that life was to be supported but a short time here, and set myself, therefore, about contriving some way to effect my escape from this floating place of misery and torment. The doctor came on board every morning to examine the sick, and three negro sextons every night to bury the dead.

"Early one morning I swallowed tobacco-juice and was so sick by the time the doctor came that I obtained without difficulty a permit from him to go on shore to the hospital. I was soon ready to disembark, for I had previously been robbed of everything except what I had on. After arriving at the hospital I was conducted into a

long room where lay more than two hundred of the most miserable objects imaginable, covered with rags and vermin I threw myself down on a bunk, and after suffering extremely for some time from the effects of the tobacco, went to sleep, but was soon waked by a man nurse, who told me that there was a physic for me and immediately went off to another I contrived, unperceived, to throw my dose out of the window, and was not again disturbed except during the following night, when I was waked several times by the carrying out of the dead The sickness occasioned by the tobacco having now ceased, it was still necessary to keep up the deception, and accordingly, the next morning, I feigned lameness The doctor told me that I must walk about the yard as much as I could I was extremely rejoiced at this good advice and lost no time in following it, hobbling off to a row of small buildings which were detached from the hospital where I smelt the reviving flavor of soup, and soon after, upon a bell's ringing, I experienced the indescribable joy of partaking of a bowlful of it, which was served out to those of the sick who could eat "

The war experiences of Isaac Greenwood, Jr., appear to have been a constant series of adventures, first captured in 1778 he managed to tunnel his way to freedom Another episode is the one he mentions in the above quoted passage, which occurred during the winter of 1781, and here again he fortunately regained his liberty Throughout his entire life Isaac suffered as a result of a severe saber cut over the head that he received in some engagement during the war This undoubtedly accounts for his "wanderlust" and unstableness in activities²

It is difficult to follow in the newspapers the activities of the varied Greenwoods, and some perseverance and ingenuity are required in order to straighten out the mass of material A few of Isaac's advertisements contain the Jun, in others, he is recorded as Isaac, while in some simply "Mr" appears In turn, because John constantly used the capital I, intended for J, many might mistake his announcements for either of the Isaac's

In an advertisement of June 21, 1788, Isaac, Jr., remarks that he had had "nine years practice" which would make his entry in dentistry in 1779 This cannot be correct because his service in the Continental Army did not terminate until 1781 Apparently after his escape in that year he went first to Providence and finally settled in Salem, Mass., where on July 3, 1781 he took "this opportunity to inform" through the *Salem Gazette* (Fig 58), that he was following his father's original occupation of making and mending umbrellas, etc In his store "he earnestly wishes for his Profits and their Good, that they would apply to him for Teeth-Brushes, and Teeth-Powder, which when used will recommend itself" He also announced that he performed all kinds of turned work In that same year he was for a "brief stay" in Norwich, Conn., at the Brown Tavern

GENTLEMEN and LADIES



ISAAC GREENWOOD, jun takes this opportunity to inform you, that at his Shop opposite the Town House, in Salem, Gentlemen may be supplied with neat walking Sticks, and Ladies with Umbrellas, neater and cheaper than those imported. He makes and mends Umbrellas Sticks in the best Manner. He earnestly wishes, for his Profit and their Good, that they would apply to him for Teeth

Brushes, and Teeth-Powder, which, when used will recommend itself.

Said Greenwood performs all kinds of turned Work Silver, such as Tankards, Cans, &c also in Brats, Iron, Ivory, Turtle-Shell, Bone, Horn, and Wood of any sort or Bigness Repairs Violins, makes Flutes, Fifes, Hoboyes, Clarinets, Chaise-Whips, Tea Boards, Bottle-Stands, Tambour Frames, Back Ganimon Boxes Men and Dices, Chessmen, Billiard Balls, Maces, Lemon Squeezers, Hydrometers, Shaving Boxes and Brushes, Ruckle Brushes Ink Stands, Paper-Folders, Sand Boxes, Bannisters for Stair Cases, &c

S A L E M: Printed by MARY CROUCH and COMPANY

Fig 58 —Isaac Greenwood, Jr's, first dental advertisement, July 3, 1781 *Salem (Mass.) Gazette*, July 3, 1781

MR GREENWOOD,
SURGEON DENTIST,
(Lately arrived in this City,)

BEGS leave to acquaint the Public, that he preserves the Teeth and Gums by removing any infectious Tartar, that destroys them, and renders the natural purity of the breath offensive. He cures the Scurvy in the Gums, also fastens the Teeth, by causing the Gums to grow up, and adhere to them. He extracts and replaces the Teeth, regulates, gives them proper vacancies, cleanses the Teeth, and makes them white. He substitutes Artificial Teeth in to such a manner as not to be perceived from the natural ones, without drawing the stomps, or causing the least pain, they give a youthful air to the countenance, and render pronunciation more agreeable and distinct; in a word, both Natural and Artificial are of such real service, it is a folly to neglect them — And as he would ever have his works recommend him, he requires no pay of those that are not completely satisfied with his performance. He has Pills for the Tooth Ach, that seldom fail to give relief, likewise boxes of Teeth Powder and Brushes, that will recommend themselves.

N B Mr GREENWOOD will, with pleasure, attend those Ladies or Gentlemen who cannot conveniently wait on him at his room, in Mr Richardson's house, No 24, at the Old Slip, New York am

Fig 59 —This advertisement has generally been stated to have been inserted by John Greenwood, in reality it is the first New York notice of Isaac, Jr (*New York Independent Journal*, January 3, 7 and 24, 1784 *Rivington's New York Gazette*, December 20, 1783)

In 1782 Isaac returned to Boston, serving as an apprentice to his father both in dentistry and in mechanical work. After the British had evacuated New York, he located there in November, 1783, as a surgeon-dentist, residing at No 24 Old Slip.³ "Soon after his arrival" he was joined by his brother, John.⁴ The latter, however, remained but a few months before locating in Pennsylvania.

Isaac, Jr's card, printed in *Rivington's New York Gazette*, December 20, 1783, and in the *Independent Journal* of January 3, 7 and 24, 1784, is one that is generally credited to his brother John, and has been published as the latter's dental advertisement, his first in New York. The fact is that it was Isaac's first New York announcement, it is reproduced in Fig. 59.

In the spring of 1785, apparently having met with little success, he left New York, sailing March 1 on the steamer "Grace" for Charleston, S. C., and thence to the West Indies en route to Europe.⁵ It is doubtful whether he actually reached Europe, although he so claimed in his advertisements, for while in San Domingo his brother, Thales, fell ill with the yellow fever and passed away in his arms. Becoming discouraged, Isaac again returned to Providence, R. I., to resume his dental practice at the same time constructing mathematical instruments and carrying on a hardware business.

On March 15, 1787, the following inserted item is to be found in the *Newport Herald*, although it was written in Providence on the 12th. From this as well as other notices, we have been led to believe that he was located in the latter city some time prior to the advertisement.

"ATTENTION

ISAAC GREENWOOD

Dentist, &c

"In consequence of several invitations he proposes to visit the city of Newport on the 25th of this month, where he shall tarry one week only—and encouraged by the success he has ever met with, humbly offers his service to the public, and begs leave to inform them, that from the experience he has gained by his extensive practice in the United States, West-India Island, and part of Europe, he flatters himself that he shall be able to give complete satisfaction in extracting, transplanting, setting, cleansing, and preserving the Teeth and Gums, by removing all scorbutic and tartarous matter, which is the cause of a foetid breath, and the certain destruction of the teeth.—As people in general are not only careless, but unacquainted with the knowledge relative to preserving their teeth, he wishes in a few words to inform them of the ill consequences attending to their neglect.—Take the pains to look, and you will observe a viscid, yellowish substance that is formed on the teeth, this is the bed in which the putrid, corroding, tartarous matter rests, that not only occasions caries of the teeth, from which follows the toothache, but in time it acquires a solidity equal to stone, continually increasing, and causing

an inflammation and often an ulceration in the gums, by stripping them from the roots of the teeth, and pressing into the alveolus of the jaws, and if not removed will by degrees protrude the teeth in such a manner, as to render them loose and entirely useless —The operation of removing this pernicious tartar is not attended with the least pain, and as mastication upon which a good digestion so much depends, cannot be well performed without good teeth, too much attention cannot be paid to the preservation of them. He substitutes artificial teeth, in so neat a manner as not to be distinguished from those that are natural, and without causing the least pain, they give a youthful air to the countenance, keep the lips from falling in, prevent the opposite teeth from growing prominent, and render the pronunciation agreeable and distinct, in a word, their beautiful appearance is sufficient to merit your esteem. He has pills for the tooth-ach, teeth brushes, and a powder, suitable to remove the tartar in its first state, and he assures the public, that no dentifrice whatever will remove it when it becomes a petrified scale —The price of scaling and cleansing the teeth is from four to ten shillings, extracting 2 s artificial teeth, if a single tooth 12 s if more than one 9 s each, and every other performance at as low rate

N B Said Greenwood will, with pleasure, attend those ladies and gentlemen, who cannot conveniently wait on him, upon sending directions to Mr Thomas Townsend's, where he shall reside "

ISAAC GREENWOOD,
D E N T I S T,
CURE S all Complaints incident to the Teeth
and Gums, substitutes artificial Teeth in the
neatest Manner, and doubts not but nine Years
Practice has afforded him Experience sufficient to
execute every Part of the above Art with the greatest
Ease and Exactness —As he never wishes to rise
in Esteem, unless gained by pure Merit, those Per-
sons who incline to pay any Attention, to their own
or Childrens' Teeth, may depend on being perfectly
satisfied with his Performances —Brushes and
Powder suitable for the T E E T H.
N B Those Gentlemen or Ladies who cannot
conveniently wait on him, shall be attended to, at a
little more Expence, upon sending Directions, two
Doors South of Mr Jacob Whitman's, West Side
of the Great Bridge. (T b c)

Fig 60 —Isaac Greenwood, Jr's advertisement *Providence Gazette and Country Journal*, June 7, 21, 1788

On May 1, 1788 in the above city, Isaac Greenwood, Jr, was married to Deborah Langley. In the *Providence Gazette and Country Journal* for June 7 and 21, 1788 there appeared the above advertisement

Isaac, Jr, continued to practice dentistry in Providence until 1810, when at the request of his brother, John, he returned to New York to

assist him *The Columbian Centinel* for July 27, 1811, contains the following announcement

"Isaac Greenwood, (From Yankee Town) No 126 Front Street, During the absence of his brother to the Springs, (and perhaps during the non-intercourse) will resume his practice of the Art Dental, which he has been in the habit of pursuing, with his other business, previous to his removal to this City, for more than thirty years. He therefore in point of competency will yield to no one."

After the death of his brother, Clark, February 10, 1810, he gave up dentistry, except during the period of his brother John's absence,⁵ and again devoted himself to the making of mathematical instruments at 126 Front Street, a trade he continued until his death on October 21, 1829, aged seventy-one years. His remains lie in Greenwood Cemetery, New York City.

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CHAPTER X

JEAN PIERRE (JOHN PETER) LE MAYEUR, M D , IN AMERICA (1781-1806)

ONE of the most interesting and perhaps the most colorful individual appearing in this historical presentation is the subject of this chapter, Jean Pierre (later Anglicized to John Peter) Le Mayeur. Of this period there has been no one about whom less was known, who appeared more mysterious, and of whom more fables were invented.

Our present knowledge of this man of mystery, heretofore mentioned as "Le Maire," "La Mai," "Joseph Lemaire," or La Mair," is based upon the combined writings of Horace Hayden in 1841,¹ John Allen in 1861,² B. T. Whitney in 1870,³ Dexter in 1876,⁴ William H. Trueman in 1896,⁵ Burton Lee Thorpe in 1910,⁷ and Lilian Lindsay⁹ as late as 1933. This knowledge for the most part is based upon hearsay evidence and misinformation, which unfortunately is true of many of the others in this group of early American dentists.

Before the *American Society of Dental Surgeons*, Horace H. Hayden in 1841, stated ¹

"The first hints that were afforded, or opportunities offered to any person to obtain a knowledge of the profession, was, we believe, through a French dentist, by the name of Le Maire, who offered his services to the public during the Revolutionary War. We do not pretend to a correct knowledge of his history, or of the manner in which he found his way to this country, but believe that it was with the French troops who came to our assistance in our revolutionary struggle. However that may be, he had probably acquired a knowledge of the profession in his own country, where it had long been cultivated, and was not without some pretensions to skill in practical operations, especially in transplanting of teeth from the mouth of one person, to that of another, and by which, as he frequently performed the operation, he enjoyed a very lucrative business. He, likewise, undertook to instruct some two or three persons in the profession, which may be considered as the origin or commencement of dentistry (vulgarly so called) in this country."

John Allen (1810-1892), in 1861 in a "Review of Who are Dentists," wrote the following ²

"But to say that dentistry originated here in the United States, is a false assumption that should not be handed down to posterity in our dental records of the present era. No, the practice of dentistry was first introduced in the United States by Lemair, of the French forces, which joined our army during the revolutionary war in 1778, after which he resumed his practice in this country."

B T Whitney (1813-1872), in 1870, stated ³

"The next was a frenchman, named La Mar, who came over in the French army with LaFayette, during the revolutionary war, and soon after its close an Englishman named Whitlock. But they left no record of having been possessed of any great amount of knowledge or skill."

Dexter, in his *A History of Dental and Oral Science in America*, in 1876, wrote the following ⁴

"Most accounts have given, as the first dentists in America after 1776, Mr Joseph Lemaire and one Whitelock, or Whitlock, but it appears from Watson's *Annals of Philadelphia* (vol 1 p 179) that, on Mr Lemaire's first appearance in that city, in 1784, he found there a dentist (whether native or foreign is not stated) by the name of Baker, 'the first person ever known as a dentist in Philadelphia.' This is also all that is known today of this person. When he first practiced in Philadelphia cannot be ascertained.

"Dr James Gardette also mentions Lemaire (called by him Lemayeur) as one who had the 'reputation of an eminent dentist' in Philadelphia when he arrived in that city, in June, 1784."

William H Trueman (1842-1927), in a paper presented in 1896, gave us a much more detailed story of La Mayeur's experiences in this country and his association with Gardette ⁵

"With the land forces sent to our assistance by France was a young officer, Joseph LeMaire, a dentist of Paris, who, following the example of many of his countrymen, abandoned for the time being his business and tendered his services to the cause of liberty."

Edward C Kirk, (1851-1933) in his *Pioneer Dentistry in New York*,⁶ as late as 1906 devoted to Le Mayeur but one short paragraph

In 1910 the situation was further confused apparently by Burton Lee Thorpe (1871-1923), as his study presents the concept of Le Mayeur's life commonly entertained today. We will quote in detail ⁷

'The first of the real heroes to be considered is Joseph Jean Francois Lemaire (also spelled LeMair and LeMayeur)—revolutionary patriot and pioneer surgeon-dentist—born at Mayenne, France, 1752

"After completing his studies at the medical school in Paris, he devoted himself to the study of dentistry in that city. The rich red blood of patriotism flowed in his veins and inspired him to come to America with the French fleet, under the command of Count Rochambeau, to assist in our struggle for independence. He arrived July 12, 1780, and landed at Newport, where he began surgical and dental practice on this side by working for the officers and others of the allied armies

"Lemaire was an intimate friend of the Marquis de Lafayette, who spoke highly of his ability as a surgeon

"During time of battle he was in the thick of the fight and bravely opposed the British forces. While the American and French armies were in winter quarters in 1781-82 in the vicinity of Providence, Rhode Island, half clad, half fed, and suffering all the aches and pains the flesh is heir to, incident to neglect and exposure, Joseph Lemaire labored faithfully to relieve his comrades in arms and the residents of the adjoining country of their dental and other pains "

"During the winter of 1781-82, Dr. Lemaire tutored two fellow patriots in the art of dentistry. One a fellow-countryman, James Gudette, aged twenty-five, the other an American, Joseph Flagg, eighteen years of age both of whom afterward proved a credit to American dentistry

"After the close of the Revolutionary War he gave instruction to Mr. Spence and several others. He was the first and original American dental preceptor and his coming marked the commencement of dentistry as a profession in America

"Lemaire's skill tended toward surgical work and his main specialty was the transplanting of teeth, which operation he introduced in America. Record states that he was unsuccessful with this operation during the time of the war, owing no doubt to the poor state of health of his patients, from exposure. In the winter of 1781-82 record further states Lemaire 'transplanted over one hundred teeth and not one succeeded'

"At the close of hostilities he went to New York, where he remained but a short time. He located in Philadelphia in 1784 and advertised that 'six months previous he had successfully transplanted one hundred and twenty-three teeth' and that he also 'carved artificial teeth from blocks of ivory'

"In Watson's *Annals of Philadelphia* we find stated 'Dr. Lemaire had great success and went off with much of our Patricians money'

"He practiced in Philadelphia until the fall of 1786 and then went to Baltimore, where he remained in practice a year or more. His former student, James Gardette, writes in the '*Philadelphia Medical Recorder*' in 1827 'Mr. Lemaire, with the reputation of an eminent dentist, had transplanted one hundred and seventy teeth in this city, in the course of the winter of the years 1785 and 1786, as he told me himself, at Baltimore, in the fall of the last-mentioned year, and that of all these transplanted teeth not one succeeded' Some became firm and lasted, more or less so, for two years, in the sockets in which they had been inserted, but those cases were very rare'

"Characteristic of his nationality he was possessed of a genial nature and was regarded by the citizens of Philadelphia as a courteous and cultured gentleman, eminently proficient in his calling

"In 1787 Lemaire returned to his native land and resumed the practice of dentistry at Paris, where he was known as a studious investigator and painstaking workman. It was here he developed his latent talent for writing and contributed some valuable works to the profession's literature

"In 1812 he wrote and published his first work, '*The Ladies' Dentist*,' other editions of which were published in 1818-1824-1833

"In 1816, '*A Manual on the Anatomy and Physiology of the Teeth*'

"In 1821, '*A Natural History and Diseases of the Human Teeth*,' a translation from the English work of Joseph Fox

"In 1822-24, *A Treatise on Dental Physiology and Pathology*

"The death of Lemaire occurred at Maisons-Alfort, France, 1834 and closed a well-rounded career of usefulness. His name will live in dental history as patriot and pioneer surgeon-dentist, whose emigration marks the beginning of dentistry in America and also as being the first American Dental preceptor."



Fig. 61 —This coat of-arms was found upon a ring belonging to the estate of Le Mayeur. If it were his own, it would indicate that he was a French Count. A search has been made by the *Societe des Amis de la Bibliotheque Nationale* but with little success. Further investigation might assist in determining just who Le Mayeur was and his place and date of birth. (Courtesy of the Misses Boykin.)

The author of the foregoing statements seems to have had the tendency of drawing upon his imagination for his data, for first his name was not Joseph Jean Francois Lemaire (1782-1831), but Jean Pierre (later Anglicized to John Peter) Le Mayeur and never was his last name spelled otherwise. Second, where he was born and where he studied, has not so far been ascertained, and it is certain that it was not in Mavenne in 1752. Third, he practiced surgery in London prior to coming to America, and did not come to America with the French fleet

under Rochambeau. Fourth, he did not arrive in America on July 12, 1780, but instead, about the first of November, 1781. Fifth, he was not an intimate friend of Lafayette, etc., as will be seen by Washington's letter of introduction given to Lafayette. Sixth, Le Mayeur was not in Newport either in 1781 or 1782, "in the thick of the fight bravely opposing the British forces" and "teaching Gardette or Flagg," but instead was in New York with the British in 1782. Seventh, Le Mayeur did not return to France, instead he located in Virginia. Eighth, he did not in 1812, 1816, 1821 and 1824 write the books credited to him. Ninth, nor did he die at Maisons-Alfort, France in 1834, instead he passed away in May of 1806 at Mt Pleasant, Virginia (now West Virginia).

George Viau, in his *French Dentistry in the United States*, read before the Congress in Bordeaux in 1923, and published in *Dental Cosmos* for April 1925,⁸ was the first writer to correct some of the errors regarding Le Mayeur. In his article, Viau proposed the question "Did Gardette really have a comrade by the name of Lemaire in Lafayette's army? That is the crux of the question." He writes

"This open confusion did not occur until many years later, and probably at the time when Chapin A. Harris, outlining the history of the origin of the profession in the United States, as well as later authors, adopted the name 'Lemaire,' undoubtedly because Joseph Lemaire, the Paris dentist, had acquired in his day (about 1812) a wide and fashionable reputation. American writers therefore thought that this must be the same Lemaire and each in turn stated that the author of '*Le Dentist des Dames*' and other works was the comrade of Gardette who returned to France in 1787 and died in 1834 at Maisons-Alfort after a brilliant career in Paris.

"It is claimed in the United States that Le Mayeur (or Lemaire) had pupils. No proof, however, has been found, and Josiah Flagg, who is reputed to have studied with him, had been in contact with Gardette long before the arrival of Le Mayeur with the army of Rochambeau. Le Mayeur disappeared in 1787, probably to resume his career as naval surgeon, and let us note *that neither in France nor in the United States has any trace ever been found of a dentist named Le Mayeur*."

Viau then proved that Thorpe confused Joseph Lemaire, the Parisian dentist, with the Le Mayeur in this country, and exhibited the birth certificate of the former, which is dated March 26, 1782.

Le Mayeur's Correct Name

The past confusion and uncertainty in regard to Le Mayeur's correct name is difficult to understand.^{9 15} With the exception of Kirk, previous historians have incorrectly referred to him under the many names already cited. One reason for this is perhaps the statement in *Watson's Annals of Philadelphia*,¹⁶ "When Joseph Lemaire first landed in Phila-

delphia " Fitzpatrick, in his *Diaries of George Washington*,¹⁷ referred to him simply as "Le Moyeur." The reason for this will be mentioned later in a footnote¹⁸. As a result, Blanton, in his recent work¹⁹ so refers to him. If those interested had examined the newspaper advertisements of the time, this error could have been avoided and would not have been continued until now, for each one definitely stated, "Le Mayeur," never "Le Maire" or any of the other contractions.

Searching for certain letters in any library is not always an easy matter. If one is rewarded with a few at a time, fortune indeed has smiled upon him. Until recently the letters in the *Library of Congress* were not all indexed, and it necessitated searching through Washington's vast correspondence.²⁸ Le Mayeur's earlier letters bear only the signature "Doch Le Mayeur." Later one was found with the initial "J", but not until 1933, when the last few letters were discovered, was the name "John" definitely proved. Apparently it was not until 1786 that he anglicized his French name "Jean" and the "Pierre" to "Peter," which will be explained later.

Originally it was our intention to gather, for the Washington Bicentenary Celebration, material on the life of John Greenwood and his services to George Washington. That search brought to light the fact that Washington consulted not only one dentist, but at least eight, the first being William Baker, in 1755, and the last, John Greenwood, 1789-1799. The logical place to begin such an investigation was in the printed diaries of Washington and in his private letters. The results from both sources were indeed encouraging, as we succeeded in tracing some thirty-eight letters to and from Washington, which contained enlightening references.

In Le Mayeur's case it was a footnote by Dr. John C. Fitzpatrick in his *The Diaries of George Washington*,¹⁷ 1925, that gave the first clue. He wrote:

"Dr. Le Moyeur, a French dentist of reputation. He came to America in 1780 with letters of introduction to Sir Henry Clinton. After a time he resented some remarks derogatory to the French, which were made at Sir Henry's dinner-table and forthwith became persona-non-grata to the British." V 2p 413

As a result, the following story has now been pieced together:

We were very happy, however, to find the original draft of a letter written by Lt-Col. William Stephen Smith in the *New York Public Library*, also the actual letter that was sent to Washington, in the *Library of Congress*. The information supplied concerning Le Mayeur was part of Smith's reply to Washington's inquiry. These letters will be considered in their proper chronological order.

Although we had been at work on this material for over five years, it was some time before we succeeded in obtaining from the *Public*

*Record Office*²⁰ of London, the first of Le Mayeur's letters, with a supporting letter written by a gentleman by the name of Barnard Turner, which definitely establishes and proves our contention that Le Mayeur did not come to America with the French army or navy, nor could he have been in Newport or Providence during the time Trueman and Thorpe mention—July 12, 1780. We had previously come to this conclusion as the result of a search through Rhode Island newspapers of that time. A thorough search had been made of this and other material at both the *Providence* and *Newport Historical Societies*, as well as in the *John Carter Brown Library* in Providence. Nor did we find his or Gardette's names included in the list of French combatants published by our government in 1905²¹ in the work of Doniol and Stone, or in the files of the *Rhode Island Historical Society Collection*, wherein were listed the names of the French officers^{22 25} and the places where they were housed during those years.

The supporting letter of Barnard Turner was indeed a happy find, for from it we were able to ascertain Le Mayeur's first name and the fact that he was originally a surgeon "who practiced in Portland Street, London, for many years," previous to his coming to America, thus clearly establishing the fact that he left London, not to serve in any of the armies but instead "to settle some family affairs." His name does not, however, appear in the *List of Naturalizations in England, 1700-1800*, printed by the *Huguenot Society*, London.

This letter was addressed to the Secretary of State of England (probably Viscount Weymouth), by Barnard Turner, an alderman of Paul's Wharf, and reads as follows:

"My Lord

Since I had the honor of writing to your Lordship this morning, the Post has brought me the enclosed letter from Doctor Jean Pierre Le Mayeur, who went to Falmouth some time ago on his way to New York—but finds he can go no further without a passport from your Lordship, which he craves—I have known him many years in London and while he lived in Portland Street he carried on his profession which is that of a Surgeon, with great credit—I believe him a man of strict honor and know he goes to America in order to settle some family concerns which the death of a brother, makes necessary.

He got an exceeding good certificate before he left London not only to his merit as a Surgeon but also to his general behavior.

Should it be possible to forward him a passport I believe your Lordship had never a less objectionable person making the request—with great respect

My Lord, I remain,

Your Lordships most obedient humble Servt

BARNARD TURNER

Paul's Wharf, 10th Sept 1781 "

Here again the city directories are of little help. From Charles William F. Goss, of the *Bishopsgate Institute*, London, we have the following information:

"Portland Street (Oxford Street) now forms a part of Great Portland Street, and in Le Mayeur's time the street was inhabited by many important persons. 1770, Wm. Gurthrie, author of the *Grammar*, died there. Joseph Wilton, R.A., occupied a large house close by. Wm. Seward, author of *Seward's Anecdotes*, lived at No. 40. James Boswell, the biographer of Samuel Johnson, died at No. 47 in 1795. No. 65 was the residence of John Jones, the engraver of portraits. After Reynolds and Ronney, Sir David Wilkie, William Collins, R.A., Leigh Hunt, and Joshua Brookes, the great surgeon became residents at a later period. I should have told you in my last letter that there is no Directory existing giving the names of persons resident in the West of London. The early directories and those of 1780-81 and even later merely give the names of merchants and traders in the City of London proper. It was not until 1792 that the West of London received any attention in that direction and it was not until about 1802 that lists of surgeons, physicians, etc., were included in Directories."

Le Mayeur's letter, written in French, was a request for a passport, to New York. Many words are blurred and indistinct, and impossible to decipher, therefore a "?" mark has been inserted at certain places.

"My dear Sir and Friend—I have come to you to obtain a certificate, otherwise called passport, for New York. [Logens?] of Falmouth has told me that he has seen very strict orders for none to be allowed to sail without the permission of Lord George Germain, and the boat leaves Monday if the wind continues to be favorable. But if I should be fortunate enough for it to change and if you would be willing to have the kindness as soon as the present is received, to give yourself the trouble to go and ask for one and send it to me immediately by the post. Perhaps it would reach me before the departure of the boat, poste restante at Falmouth.

Then [Sterithe?] just last week remarked that I had no need of one. See the embarrassment under which he put me and judge how vexed I was.

My respects to Madame Turner and to your daughters. A million pardons, my dear sir, for the trouble which I have given you in bothering with such an excess of obligation which will have [?] you. I am very sincerely your affectionate and true friend.

Doct. le Mayeur."

This letter of Le Mayeur's bears no date, but upon the back is stamped "Sept 10 1781." If Le Mayeur was fortunate enough to have sailed on the ship the following Monday, which would have been September 17, he would have, if favorable weather permitted, reached New York in about thirty-five days, or about the end of October, 1781.

28 Maiden Lane

In *Rivington's Royal Gazette* for April 27, 1782, there appeared an advertisement for live "front teeth", without giving the name of the advertiser. In fact, for years it was not unusual to see such announcements in the newspapers in various cities. (Fig 62)

T E E T H

ANY Person that is willing to dispose of their
FRONT TEETH, may hear of a purchaser,
by applying to No. 28, Maiden Lane, for which a
generous price will be given
N B Four Guineas will be given for every Tooth

Fig 62 —The wording of this notice and those of Le Mayeur's dated in December, 1783, all having the same address, lead us to believe that it was he who inserted the advertisement. *New York Royal Gazette*, August 1, 1782

Such teeth were essential in order to carry out the operation of transplantation or implantation, a procedure of dental practice dating back to the Grecian and Roman times. We now know and have actual specimens in the *Museum of the Indian Museum, Heye Foundation*, New York, which show the successful accomplishment of these operations by the Indians of Peru and Ecuador about 200 A.D. Gaidette questioned the success of Le Mayeur's use of that method, and even Washington at first had little faith in this type of dental procedure, as may be seen in his letter of May 15, 1783. Later, February 22, 1784, this opinion was altered.

The above announcement again appeared in the same newspaper on August 1, 1782, and has previously been referred to by Kirk. A footnote added "four guineas will be given for every Tooth," one guinea being about \$5.00. This offer evidently had the effect of producing an oversupply, for in the same paper of December 6 the unknown dentist reduced the amount to two guineas a tooth. The price eventually dropped to one guinea, as stated in the *Daily Advertiser* (N.Y.) of November 23, 1787.

DR. LE MAYEUR, DENTIST
who transplants TEETH, at No. 28
Maiden-Lane, will leave this City on
2d of February, and will not return
May next

Fig 63 —The number of the house is plainly "28" in the original but is so close to the binding that it is blurred in the reproduction. *Independent Journal*, January 28, February 1, 1784

The preceding advertisement (Fig 63), found in the *Independent Journal* (N Y) January 28, 1784, so far has escaped the attention of historians, and we believe it reveals the identity of the anonymous advertiser

The address of the earlier advertiser was given as No 28 Maiden Lane and corresponded to the one now used by Le Mayeur. Unfortunately, the city directories of New York were not published until 1786, so that it is impossible to verify the address of Mr Lisenard, in 1783, with whom Le Mayeur lived, as may be discovered in one of Washington's letters

In Viau's article, cited above,⁸ he stated "and let us note that neither in France nor in the United States has any trace ever been found of a dentist named Le Mayeur." We desire to list here our records of such an individual, which seems to be fairly complete from the time he left England in September 1781, up to his death in May 1806

Le Mayeur's Record in America

1781 — Sept 10	Public Record Office, London
1782 — Apr 22	28 Maiden Lane <i>Rivington's Royal Gazette</i>
1782 — Aug 1	Advertisement in <i>N Y Royal Gazette</i>
1783 — May 15	Geo Washington's letter of inquiry to Lieut Col Wm S Smith from Newburg
1783 — May 20	Wm S Smith's reply, (Letter of Introduction)
1783 — June 20	Geo Washington visited by Le Mayeur
1783 — July 1	Letter in 3rd person to Washington, N Y
1783 — July 16	Geo Washington's letter to Le Mayeur from Newburg
1783 — Dec 6	<i>Rivington's Royal Gazette</i>
1783 — Dec 8	<i>N Y Independent Journal</i>
1783 — Dec 13	<i>N Y Independent Journal</i>
1784 — Jan 20	Le Mayeur to Washington letter
1784 — Jan 28 to Feb 21	<i>N Y Independent Journal</i>
1784 — Feb 22	Washington's letter to Richard Varick
1784 — Mar 3	Left N Y for Mt Vernon (Letter)
1784 — Mar 5, 6, 7	Philadelphia
1784 — Mar 8-19	Baltimore
1784 — Mar 20	Richmond, Va
1784 — Mar 24	Mt Vernon
1784 — Mar 10	Adver <i>N Y Independent Journal</i> Left N Y
	Intend to return end of May
1784 — Mar 31	Letter to Geo W's aide, Varick, from Mt Vernon
1784 — June 12 to July 28	<i>N Y Independent Journal</i>
1784 — July 28	<i>N Y Independent Journal</i> added remarks
1784 — Aug 14	Le Mayeur to Geo Washington from N Y
1784 — Aug 30	Washington's answer
1784 — Sept 8	<i>Pennsylvania Gazette</i>
1784 — Sept 15	<i>Pennsylvania Gazette</i>

1784 — Oct 27	<i>Freeman's Journal</i> , Phila
1784 — Dec 18 to	
1785 — Jan 15	<i>N Y Independent Journal</i>
1785 — Mar 10	<i>N Y Packet and Independent Journal</i>
1785 — Sept 15	Washington's First Diary's entry
1785 — Sept 19	Left Mt Vernon for Alexandria (<i>Diaries</i>)
1785 — Sept 26	Returned to Alexandria (<i>Diaries</i>)
1785 — Oct 18	Richmond, <i>Virginia Gazette</i>
1785 — Nov 2	Letter Le Mayeur to Washington
1785 — Dec 3	Richmond, <i>Virginia Gazette</i>
1786 — Apr 10	Le Mayeur to Washington Letter
1786 — Apr 14	<i>Washington's Diaries</i> , Mt Vernon
1786 — June 15	<i>Washington's Diaries</i> , Mt Vernon
1786 — June 17	Returned to Alexandria
1786 — June 23	In Mt Vernon
1786 — June 28	In Mt Vernon
1786 — July 1	In Mt Vernon (<i>Diaries</i>)
1786 — Aug 28	Bath, Va Letter to Geo Washington
1786 — Sept 27	<i>N Y Daily Advertiser</i>
1786 — Nov 17	<i>Independent Gazetteer</i> Phila
1786 — Dec 14	Mt Vernon (<i>Diaries</i>)
1786 — Dec 22	Mt Vernon (<i>Diaries</i>)
1786 — Dec 26	Alexandria
1787 — Feb 4	Mt Vernon
1787 — Feb 5	Alexandria (<i>Diaries</i>)
1787 — Feb 8	Mt Vernon
1787 — Feb 9	Left and returned to Mt Vernon
1787 — Feb 10	Mt Vernon
1787 — Apr 8	Petersburg, Va Letter to Geo Washington
1787 — May 23	Richmond, Va Letter
1787 — Oct 24	Charleston, S C Letter
1788 — Oct 27	Washington's Diaries (Horses)
1788 — Nov 20	Mt Vernon (<i>Diaries</i>)
1789 — Oct 23	Fredericksburg, Va Certified copy of Le Mayeur's taking the oath of fidelity to the Commonwealth of Virginia
1794 — June 25	Mt Pleasant, Va Personal letter
1806 — Jan 4	Richmond, Va Last will
1806 — Mar 10	Mt Pleasant Va Personal letter to Mrs Burton
1806 — May 5	Mt Pleasant Codicil to will
1806 — May 29	Mt Pleasant Inventory of Le Mayeur's possessions after his death

Much of the mystery surrounding Le Mayeur is now removed, and he becomes an important figure in early American dentistry

Washington's Inquiry Regarding Le Mayeur

Le Mayeur's association with Washington began early in his professional career in America and happened through a chance conversation, as can readily be seen by the following letter, dated May 15, 1783. Here Washington cautioned his investigator to be extremely careful, for "I would not wish that this matter should be made a parade of"

All through Washington's lifetime he was extremely sensitive regarding his teeth, this will later be shown in the chapter relating to Washington and his need for medical and dental care

"To Lieut-Col William S Smith, New York,
Newburgh May 15, 1783

Dear Sir —

Sometime in the Winter, or early this Spring a Frenchman in New York applied (after representing the manner of his getting to that place) for leave to come out Being a stranger of whom I had no knowledge, and only his own word to support his narrative, I informed him that his application would go with more propriety to the Minister of France at Philadelphia, than it came to me, and referred him there accordingly The other day at Orangetown, Mr Fraunces informed me, that, this applicant was the Dentist of whose skill much has been said, and that he was very uneasy at not being able to get out Having some Teeth which are very troublesome to me at times, and of which I wish to be eased, provided I could substitute others, (not by transplantation, for of this I have no Idea, even with young people, and sure I am it cannot succeed with old,) and gums which might be relieved by a man of skill I would thank you for making a private investigation of this man's character—knowledge in his profession, and if you find them such as I can derive any benefit from, encourage him to come out, and to take this on his way to whatever Port, or place he may be bound At any rate, if he is really skillful, I should be glad to see him with his apparatus I would not wish that this matter should be made a parade of, and therefore give you the trouble of Arranging it, I cannot (having forgot it) give you this man's name, but Mr Fraunces, can point you to him I think he told me he lodged at Mr Lispenard's where he had exhibited some proof of his skill

Geo Washington "

William Stephen Smith's reply of May 20, 1783, reads as follows

"New York 20th May 1783—

8 o'clock P M —

"Sir—

I was this morning honoured with your Excellency's private letter of the 15th inst and having this day dined with Mr Lispenard I took an opportunity of asking some questions relative to Doct^r Le Moyer and turned the conversation upon his abilities in his profession—I have the pleasure to inform your Excellency that he is considered particularly eminent—He came to this Country, about 3 years past, recommended by General Conway to Sir Henry Clinton and General Robertson who received him with every mark of attention—He continued in favour untill one day at dinner with General Robertson and some British officers, his Country as connected with this was reflected upon, he replied with a degree of warmth displeasing to the General who after continuing to notice him some weeks with a cold civility, permitted him to remain ever after unattended to except by the Eye of Suspicion—He is a man of polished manners, of strict integrity, at the Head of his Profession—and a friend to this

Country—These assertions are founded upon the sentiments of the most respectable Character of the Wig-Circle in which he has moved since his arrival here "

Here we have further confirmation that Le Mayeur did not come to America with the French, and at the same time knowledge that he was a constant resident of New York from the time of his arrival, in 1781. He could not, therefore, have been in Newport, as previously reported. During those interesting years he was, instead, directly associated with the British. In one of Dr. Fitzpatrick's* letters February 18, 1932, he wrote "I have always liked Le Moyeur because of the story about him that he resented the impoliteness of some of the British officers at Carlton's own table in New York, before he succeeded in getting through the lines to the American side. That took nerve!"¹⁸

Smith's reply was evidently satisfactory to Washington, for in June we find Le Mayeur had just visited him at his headquarters in Newburg, having performed the services desired.

"To Lieut. Col. William S. Smith, New York
Dear Sir

Newburg, June 20, 1783

Doctor Le Mayeur by whom I expect you will have received my letter of the 12th had scarcely left this, when your favor of the 17th

G. W."

Unfortunately the letter of introduction from General Conway to Sir Henry Clinton has not yet been located. It is not among the Clinton material in the *William Clements Library* in Ann Arbor or Bay City, Michigan, the *Huntington Library* in San Marino, California, the *Morgan, Rosenbach, New York Public* or other New York libraries, the *Library of Congress, New York State Library* or a host of others in this country, nor could it be found in the *Public Record Office* and those libraries in England to which letters were sent.

Though preliminary articles of peace had been signed on November 30, 1782, there was no armistice, therefore Washington had to pass another winter with his army on the Hudson. A definite treaty of peace was finally signed on September 3, 1783, but the British did not evacuate New York until November 25, 1783. As a result of Washington's help, Le Mayeur's desire to get through the British lines must have been accomplished, as indicated in the above letter from Washington to Lieut.-Col. William S. Smith, New York, dated Newburg, June 20, 1783.

* "Dr. LeMayeur caused me considerable trouble. Had I seen any of his printed advertisements I would of course have spelled his name with an 'r' but there are one or two letters from him in the Washington manuscripts and I defy any one to decide whether the letter is an 'o' or an 'a'." (Letter dated February 18, 1932 from Dr. J. C. Fitzpatrick.)

The next letter located of Le Mayeur's, dated New York, July 1, 1783, was written in the third person and referred to articles for personal use

"Doctr Le Mayeur presents his humble respect to his Excellency General Washington and Madame, has sent his Excellency the three articles, the use of which the General is perfectly acquainted with, hopes the valise, etc is safely arrived, but is extremely sorry to find that his letter which was to have attended it was by some misfortune left behind

When the Doctr shall receive the things that are expected from Virginia, he will take the opportunity to present again his respect to his Excellency & Madame at headquarters

New York 1 July 1783 "

Washington replied to this on July 16, 1783

"To Doctr Le Mayeur

New York

Newburgh, July 16, 1783

Sir

The Vallise arrived safe, as the three articles which accompanied your card of the first Instance, also did, but the letter did not get to hand till yesterday I can only repeat my thanks to you for your great and constant attention to me, and wish for opportunities to show my sense of them

The small matters which were expected from Virginia are not yet received, and its to be feared will never be found I am going to make an excursion which will, I expect, employ fifteen or more days

You will be pleased to receive further assurance of the pleasure I shall have in entertaining you at my house in Virginia, and in showing you every civility in my power in that State I am Sir, Your

mo obt Hble servant

Geo Washington "

The newspapers of New York again give us our next reference to Le Mayeur's activities

On December 8, 1783, there appeared in the *Independent Journal* (New York) the following advertisement

"Doctor LE MAYEUR
FRONT TEETH

Any person disposed to part with their FRONT TEETH, may receive Two guineas for each Tooth, on applying at No 28 Maiden Lane "

On the 13th, in the same paper, another is found that corresponds very closely to the wording of the anonymous one of April 27, 1782, with the same address Here Le Mayeur asked for "dry teeth " What use he desired to make of them is not stated

"Doctor LE MAYEUR
FRONT TEETH

Any Person disposed to part with their FRONT TEETH may call at No 28, Maiden Lane, and shall have a good price for them Also some DRY TEETH are wanted "

In the *Daily Advertiser*, for January 28, 1789, there appeared this interesting item "In the severe winter of 1783, which was a time of general distress in New York, an aged couple found themselves reduced to their last stick of wood. They were supported by a daughter, who found herself unable to secure wood, fuel or provision. She accidentally heard of a dentist who advertised that he would give 3 guineas for every sound tooth. She decided to do this. On her arrival she made known the circumstances which caused her to make the sacrifice. He, affected by her tears, refused, and presented her with 10 guineas instead." As Le Mayeur's notice was the one referred to, he undoubtedly was the individual thus moved to charity.

That Le Mayeur was not able immediately to avail himself of Washington's hospitality in Virginia, as he hoped and anticipated, can be seen by his letter of January 20, 1784. This letter is undoubtedly the most illuminating one in the collection. From it we can obtain a fair idea as to the method of practice Le Mayeur pursued, and his own opinion as to the success of transplantation. It likewise enlightens us upon the character of his practice and the names of a few of his patients. He undoubtedly had entrance into the best circle of the time and, in spite of the disagreement mentioned by Smith in his letter to Washington, he evidently continued to retain the goodwill of many of the British officers.

"Sir

I have the honor of taking my pen to apologize to your Excellency for my not waiting on you in Virginia at so early a period as I had stipulated.

The extreme severe weather added to my not having fully completed some private arrangements which are absolutely necessary before I take my departure from this City have hitherto prevented and will for a few days longer, delay my journey for your hospitable Mansion and rob me of the honor I have so happily proposed to myself in paying my personal respects to your Excellency soon and viewing your Continence and thro' you a favorable reception with your highly honored fellow citizens.

Since your Excellency's much regretted departure from this City, I have had the pleasure of gratifying two ladies and two gentlemen who I believe have the honor of being personally known to your Excellency by furnishing them with good living teeth in the room of those which were broken or otherwise decayed. Miss Ried of New Jersey—daughter of General Ried of the British Army and Miss Shorr the sister of Lady Wheate and a relation of Col. Varick lately a secretary to your Excellency have been furnished with two each and Colo. Varick himself has four front and one eye tooth, three of which were transplanted in December and are at this day perfectly secure and two other which have been transplanted some days since are in a promising state and will be perfectly firm at the period of my departure from this place which is dependent on the completion of my arrangements first alluded to and which will positively take place in

the beginning of february, when I have determined to proceed to the southward and honor myself with an immediate visit to Mount Vernon

I pray my best respects to Mrs Washington and have the honor to be with great consideration and profound respect

Your Excellencys

New York, Janr 20,
1784

Most obedt and humble
serviteur Det Le Mayeur "

That his practice kept him busy can best be judged by his delay in leaving New York, for we find in the *Independent Journal* of January 28, 1784, that Le Mayeur had planned to leave New York by February 2, yet on the 13th he advertised that "as soon as the weather moves favorably" he would depart. He was still in New York on February 21, for this notice continued to appear. In his letter from Mount Vernon, dated March 31, to Richard Varick, aide to Washington, we find that Le Mayeur left for Mount Vernon on March 3, likewise in a letter found in the copy book of Washington's letters, in the *Library of Congress*, Washington replied to a letter of Richard Varick, which cannot now be located, under date of February 22, 1784. He wrote

" I received great pleasure from the account which you have given me of Doctor Le Mayeur's operation on you, and congratulate you very sincerely on the success. I shall claim your promise of relating the sequel, for I confess I have been staggered in my belief of the efficacy of transplantation of living teeth, being more disposed to think that the Operator is partial to his own performances, and the persons operated upon, in general are inclined to compliment, or having submitted to the operation, are somewhat unwilling to expose the truth, but your accot I can, I will rely upon

"If contrary to expectations this letter should find Doctor Le Mayeur in New York, let me pray you to present my compliments to him, and tell him that his letter of the 20th is at hand, that I should have answered it, but for the information he there gave me, of his intention of setting out in a few days for Virginia, and that I shall whenever it is convenient to him, and not before, be very glad to see him at this Seat, where he, as you would at all times, meet a cordial and welcome reception "

Le Mayeur at Mount Vernon

Though Le Mayeur left New York on March 3, he did not reach Mount Vernon until the 21st of that month, due to bad weather and the condition of the roads. In a letter to Richard Varick, he gave an account of his trip

"my dear Sir,

I am sorry you can not understand french because you woul [it]
[may] be not understand my English style

I left the 3rd of March the town of New York and arrived the four and twenty at Mount Vernon

the bad weather obliged me to stay 3 days at Philadelphia, in the meantime I have paid a visit to the Attorney General in consequence of your polite letter and eleven days at Baltimore Pathomac river has been froze till the 18 of this month

I am indeed conscious of all civility and attention that his Excellency & Mrs Washington pay to a poor Dentist and the governor of this State engaged me to go to Richmond, but I represented to him that I promise to be in June at New York The general told me he wrot two letters to Mr Recorder, will you have decided since my departure I will be obligè to you sir, if you was so good to call to Mr and Rogers and give them my best compliments for all civility that I have received from them, since I am in New York & by the next poste I will write to them "

A week after leaving New York there appeared in the *Independent Journal* (N Y) the notice which is reproduced in Fig 64

DR. LE MAYEUR, DENTIST,
who transplants TEETH, intends re-
turning to this City, about the latter end of
May next
New-York, March 10, 1784

Fig 64—Notice of Le Mayeur after he had left New York *Independent Journal*

It was not, however, until about the middle of June that he finally returned to New York, as shown by another advertisement in the *Independent Journal* of June 12 He then practieed at 35 Hanover Square

"Dr Le Mayeur, again returned to this city, and for some time may be met with at Messrs Berry and Rogers, No 35 Hanover Square Persons willing to dispose of their front teeth, Will receive two guineas for each, by applying as above"

On July 28 he added to his former announeements

"Those Persons who have been furnished with False Teeth, or Natural Teeth, upon Base, on application to Doctor Le Mayeur, they will receive gums gratis"

For those not familiar with the methods of practice of the time, it was the eustom to apply red sealing wax to the ivory base to imitate the color of the gums An interesting sidelight is to be found in Washington's letter to Maj Billings under date of June 17, 1783, in Chapter XVI, p 301

On August 14 in a letter to Washington, written from New York, we find that he was still in that city Evidently he had met with such

success that his time was pretty well occupied. In his letter he endeavors to convey again to Washington his deep appreciation for the many "civilities" he was shown, by sending a "red horse" to "little Master George," who was undoubtedly George Washington Parke Custis, the son of Jack Custis, Washington's stepson. George Washington Parke Custis with his sister, Eleanor Parke Custis, became the wards of George Washington and grew up at Mount Vernon, where they were given the same care and love that had been given to their father and aunt before them.

"his Excellency General Washington

Sir

Among the many civilities I had the honor of receiving in your Excellency's family there was one which little Master George frequently showed in lending me his blue horse when I had occasion to ride—I have been so fortunate since my return to this City as to meet with a little red horse which I beg to have the pleasure of presenting to him as a token of my regard—this little horse is just big enough for the little house which Master George and myself built upon the side of the hill

I shall always remember with singular pleasure and gratitude the marks of a kind and generous regards which have been evident in the attentions I have had the honor of experiencing from your Excellency and Lady Washington

I beg leave to present my most respectful regards to Lady Washington, to the amiable sister to Major Washington of whom I hope she has received some service, to Mrs Sturde, Mr and Mrs Leon Washington

I have the honor to be with perfect respect
of your Excellency
your most humble

New York August 14, et serviteur
1784 Doct Le Mayeur"

Washington's reply of August 30 not only reveals his high regard for Le Mayeur, but brings to light the intimacy which had been established between them. Historically it becomes of greater importance, for it served also as a letter of introduction to Lafayette. Had Le Mayeur previously been in contact with Lafayette during the years 1781-82, and had he known him personally, Washington would, without doubt, have mentioned him as a mutual friend. The statement "that this letter will be handed to you by the Marqs de la Fayette, to whom I have mentioned you as one to whom I am under obligations," is ample warrant for disregarding the statements which have appeared in our histories

Adieu to Mayeur - -
 Sir,

Since I was of the 14th in on
 hanging the horse of my little Mr. Whipton came
 safe all while in my power to defend his
 safety, which is the best proof of his
 thanks to you - he finds beauty in every
 part

August - 1784 -

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but, the ship is going now to sea
 with a degree of sickness which will soon do
 honor to his person in ships -

He is a whole for all the family
 from me as it is for you. - Mr. Landon Wash-
 ington has added a daughter to her family - Miss
 Bissell is on a visit to her friends in the lower parts
 of this State - I shall start off tomorrow in a
 boat to the western country - I shall always be
 happy to hear from you, & only wish for oppor-
 tunities to make you amends for the attentions
 you have shown me. - This letter will be hand-
 ed to you by the Messrs de la Fayette to whom I
 have mentioned you as one to whom I am under
 obligations

30th Aug^r 1784 -

Love Sir, J^d Washington

Fig 65—Letter from George Washington to John Peter Le Mayeur with introduction to Lafayette, August 30, 1784 (Reproduced here by courtesy of the Library of Congress)

Doctor Le Moveur
Sir

"August 30, 1784

Your letter of the 14th accompanying the horse for little Washington came safe. It is not in my power to describe his delight, which is the best proof of his thanks to you. He finds beauty in every part, altho shy at first, he begins now to ride with a degree of boldness which will soon do honor to his horsemanship.

Mrs Washington and all the family join me in best wishes for you. Mrs Lund Washington has added a daughter to her family. Miss Bassett is on a visit to her friends in lower parts of this State, and I shall set off tomorrow on a tour to the Western Country. I shall always be happy to hear from you, and only wish for opportunities to make you amends for the attention you have shown me. This letter will be handed to you by the Margs de la Fayette to whom I have mentioned to you as one to whom I am under obligations.

I am Sir——

G Washington "

We next find Le Mayeur contemplating a visit to Philadelphia, for in the issue of the *Pennsylvania Gazette* for September 8 and 15, 1784, he announced that he intended to be there the latter part of September, and would remain there for some time.

"Doctor LE MAYEUR, Dentist,

Who has been so successful in transplanting of TEETH in New-York, proposes to be in Philadelphia the latter end of September, where he will remain some time, the time of his arrival and the place of his abode will be advertised in the News Papers "

It was not until some time in October that Le Mayeur left New York, for on October 27, 1784, in the *Freeman's Journal* (Philadelphia) another advertisement appeared.

"Doctor Le Moveur, Dentist

LATELY from New-York, who transplants teeth, has taken lodgings at Mr Greenfield's, five doors above the Conostogoe Waggon in Market Street, Any person disposed to sell their Front Teeth, or any of them, may call on Dr. le Moveur, at his lodgings, and receive two guineas for each tooth "

He remained in Philadelphia until after "New Years," as will be seen in the next advertisement from the *Independent Journal* (N Y)

DR. LE MAYEUR, DENTIST, intends returning to this City, from Philadelphia, about Christmas, and may be spoke with at his house, No 49, Wall Street.

Dr. le Mayeur, has transplanted one hundred and twenty-three Teeth since last June, and assures the Public, that not one of his operations has failed of the wished for success.

Though he planned to return about Christmas, this notice continued to appear until January 15, 1785. On May 10, in the *Packet* (N Y) and also in the *Independent Journal*, he added to his announcement the discoveries listed in Fig 67

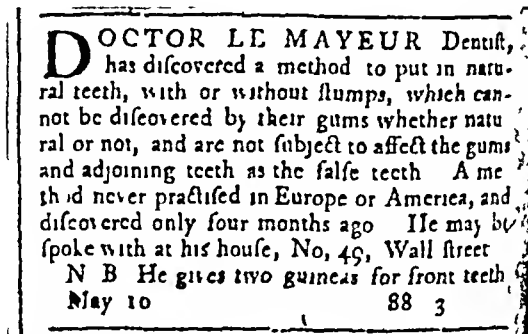


Fig 67 —*New York Packet*, also *Independent Practitioner*, 1785

Unfortunately we have no record of this method, but it shows that Le Mayeur was gradually getting away from the idea of devoting the major part of his practice to transplanting teeth

Le Mayeur in Virginia

Beginning with September 15, 1785, we find a long series of entries in *Washington's "Diaries"* which assist us in following Le Mayeur's activities with much more accuracy

"1785—Thurs 15—(Sept 1785) Doctr L'Moyer¹⁸ came in before Dinner" (Page 413 V 2)

"Monday 19—Doctr La Moyer left this for Alexandria in my carriage after breakfast" (Page 414)

Here we find Le Mayeur as a week-end guest of Washington

"Monday, 26—Went up to Alexandria to meet Colonels Gilpin and Fitzgerald on business of the Potomack Compa Doctr La Moyer, M B Bassett and G A Washington, accompanied me, the first of whom remained there. Dined at the New Tavern" (p 417)

From those diaries we learn that Le Mayeur, for the next three years was a resident in the vicinity of Mount Vernon. Unfortunately, research undertaken by many groups and individuals such as the *Williamsburg Holding Co*, Research Record Dept, and others in Alexandria and Maryland, has failed to disclose just where Le Mayeur lived during

those years. It was in this vicinity that many battles were waged during the Civil War, and as a result the tax deeds, birth and death records and other public data have been destroyed.

On November 2, 1785, Le Mayeur wrote to Washington from Richmond, Va., thanking him for his personal letter of introduction.

"Sir

the letters of introduction your Excellency was pleased to honor me for Fredericksburg and Richmond have all been delivered, in consequence of them I have received Great civility from Mr. Fitzhugh, General Spotswood,—the attorney General, Mr. Harrison Spiker of the house of delegates, Mr. Carry Speker of the Senate, and Mr. George Weeb, I have dined or engaged to dine with every one of these gentlemen. I lodge in the same house with Col. Carry and we dine together when he is in town.

"Gouverneur Henry to whom I gave the first letter offered me his services—

I am short of expression to make proper thanks [thanks] for your Excellency's favors as well by these letters of introduction as by your other kindness. Also to his Excellency General Washington. Also to make to honorable Mrs. Washington sufficient acknowledgements for the extreme obligation I am under to her.

I have the honor to be with a great respect of your Excellency
 Richmond the most obeissant and humble serviteur
 2 Nov. 1785 Doct. Le Mayeur
 the races have bigen this day and the flags of trus bilong to Mr
 Good wene, also at Petesburg."

The *Virginia Gazette* (Richmond) for October 18, 1785, shows that he must have been in that city some weeks before he wrote to Washington.

"Doctor Le Mayeur from the City of New York, Dentist. Begs leave to inform the Ladies and gentlemen that he has arrived in the City of Richmond, where he intends to stay a few weeks, and will perform any operations on the teeth, hitherto performed in Europe such as transplanting, etc. Besides, he puts natural teeth instead of false, to people who cannot have naturals. Dr. Le Mayeur may be spoke with at Mrs. Younghusband's."

That he remained there into December can be seen by another notice, dated December 3rd. The difficulty of securing "front teeth" must have become greater, for he increased his price for them to 5 guineas slaves' teeth "excepted."

"Any person that will dispose of the front teeth (slaves excepted) may receive five guineas for each, by calling on Doctor Le Mayeur, at Mrs. Younghusband's in the City of Richmond."

On April 10, 1786, Le Mayeur was again in Richmond, for he replied to Washington's letter of March 28, a letter which I have been unable to locate. The former's letter is most interesting indeed, as it gives us a new insight into their relationship. It also indicates that Le Mayeur

must have by this time established a stable of horses and his interest in the races, as shown in his postscript of November 2, must have been more than casual. There is a further entry of October 27, 1788, relating to the breeding of horses, as well as this letter from Richmond

"Richmond 10 April 1786

Sir

I have this day only had the honour of your Excellency's favour of the 28th March, owing I suppose to the neglect of the Post Office in not forwarding it to me before now

I cannot sufficiently express the high sense I have of your Excellency's polite and friendly attention to the care of my Cavalry. I am at a loss for words to express my gratitude for the new offer of the services of your horse Magnolio

I think him an Elegant horse and would prefer my mares going to him rather than any one I have seen in America, but the choice is more agreeable to me being recommended by yr Excellency to whose favour I am not ashamed to be further indebted

This comes by my servants who will relieve you from the trouble of my black horse and about the second week in May, I hope the honour of paying my respects in person to Mrs Washington and your Excellency at Mount Vernon

I have the honour to be with every sentiment of regards and veneration

Your Excellency's

Most respectfull and very
humble servants J Le Mayeur "

On April 14, 1786, "Doct^r La Moyeur sent for his Blackhorse and Chaise which his Servants carried away today" (V 3, p 43 of *Diaries*) On June 15 we find the following entry "About 7 o'clock in the afternoon, Doct^r La Moyeur came in with a Servant, Chaise and 3 Horses" (Page 76) Here we find him spending several days at Mount Vernon, for on the 17th another mention appeared "Doctr La Moyeur and Maj^r Washington went up to Alexandria today, the latter on my business. They dined there and returned in the evening" (Page 77)

It is difficult to ascertain whether these are all professional calls, for in only a few cases can we find, in Washington's diaries, any reference to dental troubles. We do find mention of his "being indisposed" and following this, a visit by some dentist. We find in his account book occasional entries for toothbrushes and dentifrices for himself and other members of his family. There appears no entry for dental services for himself during this period. As entries are made for Drs William Baker, John Baker, Spence, Whitlock and John Greenwood, it might reasonably be presumed that Le Mayeur made no charges to Washington, giving his services in return for the many kindnesses shown him, otherwise some definite amount paid by Washington would be recorded

Richmond 10th April 1786

for

i have this day only - had the honour of your
 Excellency's favour of the 28th march owing i suppose to the
 neglect of the Post office in not forwarding it to me before now
 i can not sufficiently express the high sense i have of your
 Excellency's politeness and friendly attentions to the care of my
 Cavalry, i am at a loss for words to express my Gratitude
 for the new offer of the services of your horse magnifico
 of thank him and elegant horse and would prefer my mares
 going to him rather than any one i have seen in America
 but the choice is more agreeable to me being recommended
 by your Excellency to whose favour of am not ashamed to
 be further indebted

this comes by my, friends who will relieve
 you from the trouble of my black horse
 and about the second week in may i hope the
 honour of paying my respects in person to your
 Washington and your Excellency
 at Mount Vernon

i have the honour to be with
 every sentiment of regard and veneration

your Excellency's
 most respectful and very humble
 servant J. Le Mayeur

Fig 68 —Letter from John Peter Le Mayeur to Washington Richmond, April 10, 1786 (Reproduced here by courtesy of the Library of Congress)

One can infer from the diary entries and letters that Le Mayeur's prolonged visits at Mount Vernon were not strictly social, for a week later, June 23, June 28 and July 1, 1786, he is mentioned as being again with Washington

"Friday 23d—Doctr La Moyeur came here this afternoon" (Page 79)

"Wed 28th—Doctr La Moyeur came in before Dinner" (Page 81)

"Jul 1st—Doctr La Moyeur who went from this on Wednesday last to Alexandria, returned this afternoon" (Page 83)

The next letter is from Bath, Va, dated August 28, 1786. This letter is extremely difficult to read, due to the many blots and to the faded ink. It nevertheless shows that Le Mayeur, during his travels, interested himself in the private affairs of Washington and his welfare

"Sir

I should have wrote thre weks ago to your Excelleney had not Mr ' RUMSY deceived me in his departure from this place probably he ' my informing you of the situation of your Building—which he has not done well—Col ? Washington and Mr George Lawe, agree with me in oppinion of Mr Rumsy performance

Should your Excelleney propose to write to me I shall get in at the post office in Philadelphia as I expect to be there in ten or twelve days at farthest and I hope to be at Mount Vernon by the first day of Octob when I intend to give to General a narration of the evilities I have received from Genr Smallwood but for that I make him fine gentleman in transplanting front teeth in his head of which he wrot me he is extremely satisfay

I shall refer to Mr [Rundolph] (on will get of from here in 5 or 6 days on his way to Mount Vernon for the news at Bath)

I hope Lady Washington and Major and all Washington are well

I have the honoui to be with great Respect and veneration of your Excellency

his most obed
and humb serviteur
J Le Mayeur

Bath, August 28, 1786 "

In September we find Le Mayeur again in New York, for in the *Daily Advertiser*, September 26, 1786, there appeared the notice reproduced in Fig 69

Doctor Lemayeur, Dentist,

IS arrived in Town, and has taken Lodgings at the City Tavern, where he will continue a short time Sept 26 1786. 5t

Fig 69 —The only time we have found Le Mayeur's name spelled in this manner
New York Daily Advertiser, September 27, 1786

Here, for some unknown reason, he spelled his last name as one word, the only instance which we have found

He remained in New York until November, and on November 17 we find him in Philadelphia, where he stayed about a month

"Dr Le Mayeur, Dentist, Requests any person who would wish to dispose of their Front Teeth to call upon him at the City Tavern, or opposite at (His lodgings) Mr Hogan's, tallow-chandler, and they will receive two guineas for each tooth" (*Independent Gazetteer*, No 293, No 17, 1786)

On December 14, Washington's Diaries again take up Le Mayeur's movements

"Thur 14—Doctr La Moyeur came in just as we were going to dinner" (page 145)

"Fri 22—Doctr La Moyeur came in about same time, from Alexandria and remained over Christmas" (page 149)

"Tues 26—Doctr La Moyeur went to Alexandria today" (page 150)

On February 4, 1787, Le Mayeur was again at Mount Vernon The next Diary entry is

"Monday 5th—After breakfast Doctr La Moyeur went up to Alexandria, and Doctr Stuart & Mr Ino Dandridge to Abingdon" (page 166)

"Friday 9th—Doctr La Moyeur left this (after breakfast) but meeting with some accident to his Chaise returned again" (Page 166)

"Saturday 10—After breakfast Doctr La Moyeur again set out and soon after Doctr Craik went away" (page 167)

These entries show an extended visit, due to all probability most likely to a serious illness of Washington, for both Drs Stuart and Craik were there at the same time This supposition is confirmed by Le Mayeur's letter of the 8th of April, 1787, in which he trusts Washington "is in better health than when I left Mount Vernon" This will be further described in the chapter relating to Washington and his need for medical and dental care From this letter, we obtain some slight insight into Le Mayeur's habits and life

"Petersburg April 8, 1787

Sir

Since I left the feet of his Excellency, I met with several misfortunes the first I have been hurried almost in the mud at dunfries and near Falmouth since that time to much devotion carried me into another, two weeks ago in Annapolis County on my way to church (in company with a number of ladies on horse back) to heard a sermon to be preached by a foreign clergyman one of their horses made a kick at mine, which unfortunately miss him and I received it so violently that the heel of his shoe cut my boot double and stocking through to the bone which confined me to my bed for eleven days

I hope his Excellency and Lady Waslington to whom I present my profound respect is in better health then when I left Mount Vernon and think by this time I may venture to pay my compliment of felicitation and his Lady—I have no doubt but that his Excellency has knowledge of the death of Col Carry who has left his children almost without any fortune, and has sold to his son in law Tom Randolph (widower) a tract of land for seventeen thousand pounds which has been paid him in cash and since his death it has been found the whole was mortgaged and Col Tom Randolph at Tuckhoe is security for twenty five thousand pounds (for which Col Carry gave him his dwelling place, Mill and dependencies for his security a debt he had contracted prior to the commencement of the war as well as a feigure of ninety negroes which was made before his death, and since two actions have been brought of three thousand pounds each (I have forgot wether currency or sterling I believe a number of smaller sums, to Miss Lucy Randolph is Married to Mr Lotele three weeks ago at Witton

I have the honour to be with the highest respect and veneration

Your Excellency most obedient and most
humble servant

John Le Mayeur"

Le Mayeur's next letter informs us of his intention to spend the summer at Sweet Springs, returning from there to Charleston, and then to Havana to remain from January to June, 1788 He again thanked Washington for "promoting his Cavalry"

"Sir

Owing to a months absence of this place, I did not receive your Excellencys favour of the fifth instant till yesterday by which I am sorry to find the Mayors son died

In consequence of your Excellencys good conseel I shall verse my devotion, I intend the 8th of next month to go from Petesburg to the Sweet Springs and remaine till September from there to Charlestown and next january embark for Havanah and stay till june following then return

If it might not be conceived indiscreessionately, I would solicit the favour of your Excellency to obtaine me a testimonial letter (from the Spanish minister) as surgeon dentist and I have no doubt that he will mention it is at your request which will promote my reputation

I assure your Excellency I feel myself much at a loss when I wish to apologize for the repeated obligations I have been favoured with, particularly that in promoting my Cavalry, you will I trust accept of my unfeigned thanks and in case von should think proper to honour me with an answer addressed to Col Banister (at Petesburg) I shall receive it if even I should be gone before its arrival as his you will be at Sweet springs in July

I have the honour to remain with the most profound respect and veneration

Your
 Excellency
 most obedient and most humble
 servant

John Le Mayeur

Richmond
 May 23, 1787

his Excellency General Washington "

He did reach Charleston in October, for on October 24 he again wrote to Washington

"Charleston, Oct 24, 1787,

Sir —

I hope your Excellency by this time has recovered the fatigue of your great Work in the convention which must afford the greatest satisfaction when his Excellency hears as I have done for five hundred miles where the people seems so well satisfied of the new form of Government—principally in the Reputation to have at their head the *first Legislature*

I hope Lady Washington to whom I present my profound respects as well as Major & Mrs Washington

I have been here a few days and intend to continue till the middle of January from whence to St Augustine to obtain a passage to Havana (Havannah) (as mentioned in my answer to your Excellency last favour of the 5th of May) and then to St Domingo from where I intend to return in June upon the continent at Baltimore or Alexandria if it is in my power Col Washington has not been well for some time past

I have the honour to be with the most profound respect and veneration

Your Excellency
 Most obdt & most hbl serviteur
 John Le Mayeur

His Excellency General Washington "

This is the last of his letters to Washington Le Mayeur evidently made the trip to Havana for his health as well as for professional reasons, for he stated he would return "if it is in my power "

On October 24, the following entry regarding Le Mayeur, appears in the diary Here we find Washington distributing "mares, colts and horses," including "Doctr La Moyeur's "

'1788 Oct 27th—Made the following distribution of Mares, Colts and Horses that do not work viz At Dogue Run, in the upper Meadows 22 Mares besides Doctr La Moyeur's—for brudg [sic] work or sale " (page 437)

In recording the ages of his horses, on page 136, Washington writes 'Doctr La Moyeur—a soirl 1 year "

Le Mayeur must have returned from his trip about the time he contemplated, for he visited Washington at Mount Vernon, on Nov 20, 1788, according to the following abrupt entry in Washington's Diary "Thurs 20th-Found Doct La Moyeur here" (Page 447)

For some unexplained reason, Washington did not keep a copy of his letters to Le Mayeur, these would have, without doubt, given us more insight into their relationship. We do know that the following year Washington employed the services of John Greenwood

I do hereby certify that John Peter Le Mayeur a native of France took the oath prescribed by law for giving assurance of fidelity to the Commonwealth of Virginia

J. P. Le Mayeur
23 October 1789

Fig 70—Certified copy of Le Mayeur's Oath of Fidelity to the Commonwealth of Virginia, 1789 (Reproduced here by courtesy of the Misses Boykin)

The following year, John Peter Le Mayeur, as he was then known, decided to sever his ties with his native France, and became a citizen of Virginia, and on October 23, 1789, took the oath prescribed by law giving assurance of fidelity to the Commonwealth of that state (Fig 70)

I am indeed grateful to the Misses Boykin, of Richmond, for permission to use this interesting document as well as other valuable material of Le Mayeur's now in their possession, thereby continuing his history up to the date of his death. In Le Mayeur's letter under date of May 23, 1787, he mentions that he intended to visit Sweet Springs, Virginia, to regain his health, and apparently these springs proved so beneficial that in the summer of 1790 he decided to move from Fredericksburg to what is now the boundary line between Virginia and West Virginia, purchasing several parcels of land, one of 56 acres, in what was then Mount Pleasant.²⁹ Here he lived until his death in May, 1806. This homestead and another farm remained unsold and in the family

of the Misses Boykin until recently (1933)

That he was living in Mount Pleasant on June 25, 1794, was ascertained from a personal letter written by him from there. On March 10, 1806, the following letter was sent to a Mrs. Burton, this is the last written record we have of Le Mayeur.

"Madame

It is with a great reluctance that I refresh your wound concerning the loss of Mr. Burton but the great affection for you madame! force me to pray you to accept my sincere compliments of condolence about the great loss you have sustained by his death which I consider is irreparable by the loss and attachment he had for you madame, it is with those sentiments that I pray you Mrs. Burton to accept the respectful attachment with which I have the honour to be

Madame

Your most obedient and humble,
servt

John Le Mayeur

my best love to your unfortunate son

Mount Pleasant
near the Sweet Springs
March 10th, 1806
To Mrs. Burton the widow
in Richmond "

On May 4, 1806, in Richmond, Le Mayeur, "tho weeke in body yet of perfect mind and memory," drew his final will, stating that he gave all of his estate to James Brocon, and £100 to Dr. John Curingan. At the expiration of twelve months after his death, his slaves, Isaac and Charles were to be emancipated and set free, and for their support "2 ducats of \$40 a year was left, they were then to be bound out as apprentices to such mechanical trades as they may choose for a period of nine years. On May 5, in the County of Monroe, a codicil was added, changing the will, in which he stated that the "two negro boys should at a certain age be set free and that they were to have the use of 400 acres of land in accordance to the Legislation of the State of Virginia" and that his estate was to go to John Davis "in consideration of his attention during my late illness." The will was proved on June 12, and from an inventory dated May 29, Le Mayeur must have died some time around the 20th of May, 1806. Apparently he was a bachelor and left no close kin.

The inventory discloses that he must have established a very successful practice, for he left a large and valuable personal estate. This inventory, of eight large legal-size pages, enumerated the various articles as found upon the estate and packed into twelve large trunks. His silverware and jewels, among which were a set of diamond buckles, are still retained by the present owners.

Madame,

it is with a Great Reluctance that I retract your
word concerning the loss of ~~Mr~~ ^{Mr} Ozeilon but the Great affection
I had for him and respect and attachment that I entertain
for you Madame! force me to pray you to accept my sincere
compliments of condolence about the great loss you have sustained
by his death which I consider is irreparable by the love and attachment
he had for you Madame, it is with those sentiments that I pray ~~you~~
~~Mr~~ Ozeilon to accept the respectful attachment with which
I have the honour to be,

Madame,

most most obed^t and humble,
serv^t John Le Mayeur,

most pleasant
read the letter from 91
march 10th 1806

my best-love to your young unfortunate son

Fig 71—Letter signed by John Le Mayeur, March 10, 1806, two months prior to his death. By comparing the handwriting as found upon the other letters there cannot be any doubt that they were written by one and the same person. (Reproduced here by courtesy of the Misses Boykin)

Listed in one trunk are the following interesting items, unfortunately no longer retained, which definitely relate to the practice of dentistry "7 bundles of dental instruments and bundles of files", a small case, of what is described as "gum knives," 19 French books (as these are listed separately from the others, they might have been some of the important dental books of that period), "quantity of sea horse teeth", "bundle of wood screws" (used to attach human teeth to ivory dentures) "small vise, bow strings, crucibles, and quantity of tooth brushes" The most astonishing item, however, was a "can of ether" Just how did Le Mayeur use this in his dental practice, and did he know its value as an anesthetic?

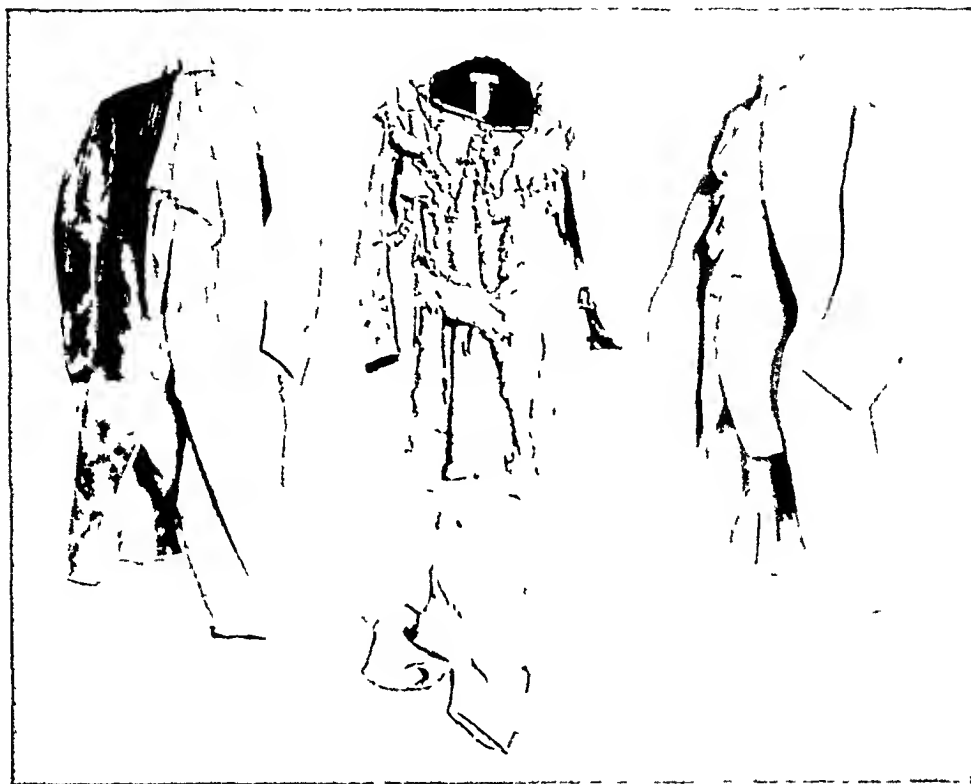


Fig. 72 — John Peter Le Mayeur's personal suits, every day, frontier and dress. Left by will in 1806 (Reproduced here by courtesy of the Valentine Museum of Richmond, Va., and the Misses Boykin)

Did Le Mayeur Teach Gardette, Flagg or Spence?²⁸

Thorpe⁷ and many others tell us that Le Mayeur "tutored two fellow patriots in the art of dentistry, one a fellow countryman, James Gardette, aged twenty-five, the other an American, Josiah Flagg, eighteen years of age." There is also a statement that Spence was another of his pupils.

We have discussed Gardette's activities in this country elsewhere, therefore we shall now consider only the possibility of his receiving instruction from Le Mayeur. There is nothing that indicates such a tutorage. Gardette had been in this country at least eight years prior to meeting Le Mayeur in Philadelphia, and though the former, from his private letters, mentioned "my colleague Le Mayeur," and despite their friendly relations, Gardette was not in accord with Le Mayeur's ideas of transplantation. His article on *Diseases of the Teeth* in the *American Museum*, 1790, definitely shows a different idea of the practice of dentistry.

As Flagg practiced only in and around Boston, and as Le Mayeur never visited the New England states, it is not likely that they ever met

Andrew Spence had already been a dentist in London before coming to Philadelphia in August 1784, having received his "education under the tuition of Dr Thomas Richard Spence, his uncle, Dentist to his Britannic Majesty" He did not, in any of his advertisements, mention the practice of transplanting teeth, thus it is not likely that he advocated this procedure, or was a pupil of Le Mayeur's

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CHAPTER XI

JOSIAH FLAGG (1763-1816)

Early American Oral Surgeon and Orthodontist

AS IN the case of nearly every other dental practitioner of this period, the life history of Josiah Flagg needs considerable revision. The exact date of his birth still remains unknown, however, the dates so far given, September 30, 1763, and July 24, 1764, are not correct, for we have found several definite records of his baptismal as of July 24 1763¹. Josiah was the son of Lieutenant Colonel Josiah Flagg, (a direct descendant of Gershom Flagg, 1668), of Elliott's Regiment of the Continental Army. He is said to have been a Major during the war and to have received instruction in dentistry from a French officer while quartered in Rhode Island from 1780-1782. This French officer is generally stated to be "Le Maire," but we have just shown in the life of Le Mayeur how impossible it would have been for him to have been the instructor, nor is there anything, except possibly Sherman's letter quoted in the chapter on Gardette which leads us to believe that the man was Gardette, although Gardette was in a better position and more apt to have given instruction than Le Mayeur. It is more probable that Flagg received his earlier dental training from Paul Revere, but there is nothing to confirm this. We have shown that the Senior Josiah and Revere were co-publishers of songs as early as 1765, and this friendship no doubt was continued in later life, therefore the younger Flagg knew Revere, and could easily have come under his training. There is also a question whether Flagg ever actually served in the war, for we could find no such record in the various Massachusetts² or Rhode Island³ archives to support this tradition. A similar statement is to be found in one of the unpublished manuscripts originally written in 1804 and revised in 1859⁴. Flagg cannot be credited with the distinction frequently accorded him, of being the first native-born dentist, Isaac Greenwood having been in practice prior to the time Flagg started.

Little is known of his early life⁵ and just when he did begin the practice of dentistry, it could not, however, have been before 1783, when he located in Boston and where he continued to practice with success until 1812. His contemporaries were Isaac Greenwood, Sr. and John Randall, both confining their practice more to the mechanical, while



Josiah Hagg

Fig 73—Photographed from the original water color now in the possession of his great granddaughter, Mrs Henry V Gummere, and reproduced here by her kind permission. Painted in Philadelphia and not in London by John Ruben Smith in 1807, as indicated by the date over the closet and on the cover of the instrument case on the table

T W Parson, a physician, performed the more difficult, surgical operations, therefore he was almost the only person in Boston who could, with propriety, be termed "a surgeon dentist"⁶ According to Dexter,⁷ Flagg began as an itinerant, distributing circulars in the various towns in which he stopped, which informed the public how well equipped he was in all departments of his art. He thus followed the example of John Greenwood, except that he continued to use this method until the close of the century. This hand-bill, undated, was published in 1785 and is reproduced here (Fig 74) for the first time through the courtesy of his great grand-daughter. It is most interesting, since it portrays the dental practice of 1785.

DOCTOR J. FLAGG,

RESPECTFULLY acquaints the Ladies and Gentlemen of this town, that he continues his practice as **SURGEON DENTIST**.

Dr. FLAGG transplants teeth, cures ulcers and raises them from pain without drawing, fastens those that are loose; mends teeth with foil or gold, to be as lasting and useful as the sound teeth, and without pain in the operation;—Makes artificial teeth, and secures them in an independent, lasting and serviceable manner.

Sews up hare lips and fixes gold roofs and palates, greatly assisting the pronunciation and the swallow.

Regulates children's teeth from their first cutting, to prevent fits and fever, and extends the jaw with ease to receive their due proportion, should they be inclined to irregularity.

EXTRACTS teeth, roots and stumps that have been despaired of, with so little pain to the patient, that no one can want confidence after once submitting to a trial, cuts the defect from teeth and restores them to whiteness & soundness, without saws, files, acids and such abusives, which shamefully crept into the profession and which have destroyed the confidence of the Public.

FROM the experience and success which Dr. FLAGG has had in the several branches of his profession above enumerated, he takes the liberty to assert (and he hopes without arrogancy) that his skill is superior to that of any competitor, who has yet appeared in this country, and to the respectable and liberal Medical Gentlemen for the support of this declaration. He desires to be still to preserve the confidence and patronage of the public, as his practice is uniformly guaranteed by the Faculty.

SELLS wholesale and retail, Dentifrices, Tinctures, Chewsucks, Mastick, Teeth, Gum Brushes, suitable for every age, complaint and climate, with directions for their use.

Fig 74—Josiah Flagg, Jr.'s original handbill or broadside prepared in 1785, in which he informed the public how well equipped he was in all departments of his art. This circular he distributed in the various towns in which he stopped. (Courtesy of Mrs Henry V Gummere.)

Those who believe that Flagg was one of the first to use gold foil in the filling of teeth in the United States, have been misled, for we have already shown that John Baker, as early as 1768,⁸ advertised "he fills with lead or gold." Flagg was, however, one of the first colonial oral surgeons for he states he "sews up hare-lips and fixes gold roofs

and palates, greatly assisting the pronunciation and the swallow" likewise "regulates children's teeth" He possessed much mechanical ability and was recognized for his ingenious methods in operating, being one of the earliest to practice "pulp tapping, to drill into the pulp cavity to relieve distress caused from a dead pulp"

According to the description on his passport No 177, issued by John Quincy Adams as Envoy Extraordinary Minister Plenipotentiary of the United States at the Court of the United Kingdom of Great Britain and Ireland, Flagg was a man much above the average height, being 6 ft 1½ (English inches), with a high forehead, hazel eyes, a small nose and mouth and rounded chin, his hair was light, he was fair complexioned and had a round face It is said that he weighed over 300 pounds, yet was well proportioned *Josiah Flagg* married twice, his first wife being Hannah Collins, his second, Eliza Brewster, whom he married in 1797, and who was "a descendant of the sixth generation in direct descent from Elder William Brewster of the Mayflower, 1620"¹⁰ He was the father of two sons, the elder being Dr *Josiah Foster Flagg*, by his first wife, born in Boston January 11 1789, died December 20, 1853 The latter Flagg practiced in Winter Street, Boston being one of the early makers of porcelain teeth and author of several books, among which was *The Family Dentist* 1822 The second son Dr *John Foster Brewster Flagg*, was born May 12, 1802, of the second marriage, and died September 8, 1872 He was the inventor of the lateral vacuum cavity for dentures, and first professor of anatomy and physiology in the old *Philadelphia College of Dental Surgery*, chartered 1852, reorganized as the *Pennsylvania College of Dental Surgery* in 1856 This same Dr John F Brewster Flagg was the first to expose Morton's so-called "New Compound Lethicon," and proved it to be nothing but sulphuric ether, which he administered experimentally as an inhalant without ill results, and protested that it was not patentable

The venerable and talented Professor *J(osiah) Foster Flagg* (1828-1903), of *New Departure* fame, was the son of Dr John F Brewster Flagg, and grandson of the subject of this sketch, the last dentist of this branch of the family

About this time, Flagg, realizing the need of a practical chair for operating, converted one of the popular Windsor type into a dental chair, by inserting an adjustable head rest made of horse hair and leather, and drawers under the arm rest and under the seat The oldest existing dental chair in this country and perhaps in the world can be seen, reproduced in Fig 75 The following description is to be found under the seat "The spindles on the back were made of hickory, the

seat of apple, the arm of soft pine, the legs and rungs of maple, cherry and poplar," now known as white wood. The adjustable head rest was controlled by two thumb screws. The chair is a much prized family possession, and on the arm rest may be seen some of Flagg's original dental instruments.



Fig 75 —The oldest known dental chair in this country, used by Josiah Flagg from about 1790 until 1812 and then by his son and grandson until their death in 1903. The adjustable head rest of horsehair and leather is held in place by two thumb screws. Under the right arm rest there was a drawer for instruments, and a description of the wood Flagg used in constructing the chair is pasted upon the bottom of the seat. (Reproduced here by courtesy of Mrs. Henry V. Gummere.)

It is apparent that from 1785 until 1790 Flagg practiced only in the smaller towns in Massachusetts and Rhode Island, depending entirely on the use of hand bills in informing the public of his qualifications and his services. In 1790 he located permanently in Boston, and in the *Independent Chronicle and Universal Advertiser* for June 10 we find just below his father's, his earliest newspaper advertisement. "All of the various branches of the Dental Art," he states "he practices, and upon a new, much improved, highly recommended, and really safe method." His early religious training becomes manifested when he further remarks "*The poor ye have always with you*" therefore "they are *cheerfully* promised assistance gratis." "'TRY ME, PROVE ME' 'HOLD FAST THAT WHICH IS GOOD'" (Fig 76)

Josiah Flagg, junior, SURGEON DENTIST

IN MILK STREET, facing Federal Street,

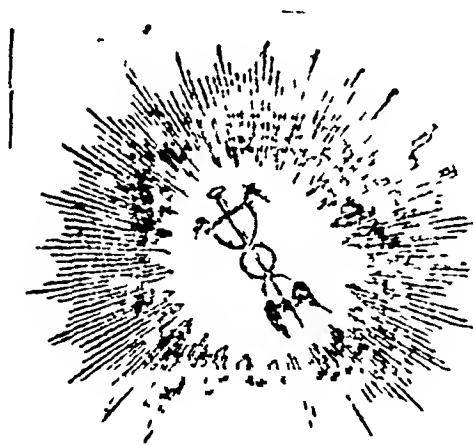
HAS the honour to acquaint the Ladies and Gentlemen of this metropolis and the vicinity, that he cures ulcerated Teeth and hardens the Gums without drawing—extracts Teeth, Stump or Roots with the greatest facility, and safety, in the most painless manner—fills those that are loose by the scurvy, or other accident—alleviates the most acute pain, without the use of instruments—stops hæmorrhages, arising from any cause whatever—cleans the Teeth and Gums restoring them to perfect sanity, free of future injury—makes artificial Teeth with and without roots the former equally as serviceable as the natural ones—and practices all the various branches of the Dental Art upon a new, much improved, highly recommended, and really safe method.

Different Brushes and Dentifrices, with directions peculiarly adapted to the relief of every complaint.

“*The poor ye have always with you*” They are cheerfully promised assistance gratis.

“TRY ME, PROVE ME,” “HOLD FAST THAT WHICH IS GOOD” *Boston June 10 1790*

Fig 76 —Josiah Flagg's first newspaper advertisement, June, 1790



JOSIAH FLAGG, jun.
SURGEON DENTIST

AT THE STONE HOUSE, BEACON-STREET,
BOSTON—

CONTINUES his practice with useful improvements—Assistance to the poor gratis.

“*CASH* given for live Teeth,
and Gold Cobbs, or Dust” *May 25 1792*

Fig 77 —Advertisement of Josiah Flagg, Jr., in 1792, in which he adopted as a symbol of medicine the Caduceus, apparently its earliest use for such in this country. Flagg's explanation is to be seen in Fig 78. “The healing art, winged with a speedy cure, and encompassed with rays of light, knowledge or experience.”

From Milk Street, Flagg moved to Beacon in 1791, and his notice in the *Columbian Centinel* reads very much like Fig 76

On May 26, 1792, in the above newspaper, the interesting advertisement, (reproduced in Fig 77), appeared

The double entwined serpent of Mercury or Hermes wound around a staff at the head of the advertisement, is more than of passing interest Flagg desired, by incorporating it in the notice, to suggest that he was practicing a branch of medicine, and apparently he was successful in this respect, for he continued to make use of the Caduceus throughout his professional career He appears to have been the earliest in this country to utilize this symbol and his explanation of it will be given later Actually the double serpent portrays Commerce and is associated with the god, Hermes or Mercury The sign of *Aesculapius*, the God of Medicine, should be but a single serpent wound around the staff and in 1912 the *American Medical Association* adopted it as the one recognized as medicine's symbol

No advertisements of Flagg are to be found in the Boston papers from the summer of 1792 until August 17, 1795 When and why he left Boston is somewhat of a mystery, part of the time, however, we find him in the south It is from his later newspaper announcements that one must piece together the probable cause of his departure

In the issue of August 17, 1795, of the *Federal Orrery*, Flagg announces his "return to practice as a Surgeon Dentist", and mentions his patent "artificial teeth of China Enamel" This must have been the Dubois formula as introduced into America the previous year by Le Breton On August 20 on p 346 of the above-named newspaper, the same notice reappears, however, on page 345, at the end of the general news items we find the editor, Thomas Paine (1737-1809), had inserted the following

"A correspondent is happy to find that Dr Flagg has returned to Boston He hopes that his old enemies will now be ashamed of their groundless malice, and that the Dr will resume his practice, with his former emolument and reputation"

The same notice of Flagg is likewise to be found in the *Columbian Centinel* for August 22

On November 26 of the same year, in the *Independent Chronicle and Universal Advertiser*, he stated

"FLAGG (dentist)

Dr Flagg, continues his Practice one door North of the Chronicle Office—as Surgeon Dentist—where the Public may depend they can be warranted all the success he may promise, or belongs to the Profession Nov 26 The Independent Chronicle and Universal Advertiser, No 1534
Nov 26, 1795"



DR. F L A G G,

Continues his practice, as SURGEON DENTIST the most successful of the profession, in all its branches,

FOR the extracting of the first teeth in children, and the regular arrangement of the second set; for the preserving, drawing, mending, curing, making or transplanting of teeth, for the adult. All who may require his assistance, and with a confidence in him, are at liberty to bring their physician or surgeon with them, as he is emulous of giving perfect satisfaction.

He confidently asserts, that the sensation, or nerves of the teeth in the head, can be *extinguished*, by a simple, safe and easy process, with instruments, and the teeth still preserved and prevented from a further decay. On the truth of what he asserts in this, or his hand bill he risks his professional reputation.

— Cash is given for sound live Teeth, at his Room, near the corner of Winter Street, *two doors from East's Statue, Marlborough Street*



EXPLANATION

of the Caduceus, (Mercury's symbol of peace) which he arrogates as Surgeon's emblem. The healing art, aided with speedy cure, and encompassed with the rays of light, knowledge or experience.

The Field azure is charged with a Caduceus erect encircled with the rays of light—Or—the Dental types on the dexter chief are two brushes, which refer to cleanliness, and the instruments in the sinister are emblematical of the last resort or cure, for the anguish which is occasioned by imprudent neglect or of finite resistance to dental remedy.

Fig 78—Copy of Josiah Flagg, Jr's notice of 1795, apparently unknown. Here we have Flagg's *Explanations* of the three symbols he adopted for dentistry. Originally the two crossed toothbrushes were in this position. In the 1796 handbill they have been reversed. (Courtesy of the New York Academy of Medicine)

The following week he changed the announcement to read

"DR FLAGG, continues his Practice, as SURGEON DENTIST, the most successful of the profession, in all its branches FOR the extracting of the first teeth, in children, and the regular arrangement of the second set, for the preserving, drawing, mending, curing, making, or transplanting of teeth for the adult All who may require his assistance, and with a confidence in him, are at liberty to bring their physician or surgeon with them, as he is emulous of giving perfect satisfaction He confidently asserts, that the sensation, or nerves of the teeth in the head, can be extracted, by a simple, safe and easy process, with instruments, and the teeth still preserved and prevented from a further decay On the truth of what he asserts in this, or his handbill he risks his professional reputation (The Federal Orrery, Boston, November 30, 1795) "

The notice, reproduced in Fig 78, appeared on the inside page of the outside cover of the *Massachusetts Magazine or Monthly Museum* for 1795 (? December) Because it was the custom in those days when binding the magazines to remove the heavy outside covers, those examined did not have this advertisement of Flagg Fortunately some thoughtful individual had removed it and pasted it in a copy of the 1793 Low's *Astronomical Diary or Almanack*, which we have in the *Library of the N Y Academy of Medicine*, thus preserving it for further needs¹⁵

Apparently the handbill was prepared after November 26, 1795, and this appears to be the only copy to have survived, for so far no account of it has appeared in our literature¹⁵ It reads like the advertisement in the *Federal Orrery* of November 30, giving us a clue as to its probable date At this time Flagg seems to have recognized that some cooperation was advisable between the dentist and physician, for he suggests that his patients are at "liberty to bring their physicians and surgeons with them" Here we also learn of Flagg's interest in orthodontic requirements

To many, Flagg's *Explanation* in this advertisement is of greater importance than the information in the main body of the advertisement At the top we find the same three associated symbols as used by him in his broadside of 1796 A comparison of the *Caduceus* with the one he had in his 1792 advertisement shows some slight variation, while in the 1796 broadside the crossed tooth brushes are reversed The "Caducies (Mercury's symbol of peace)" he "arrogates as Surgeon's arms" "The healing art, winged with a speedy cure" he "encompassed with the rays of light, knowledge or experience" "The Dental types"—the two brushes refer to cleanliness," while the "sinister" instruments "are emblematical of that last resort or cure, for the anguish which is occasioned by imprudent neglect or obstinate resistance to dental remedy"

Johiah Flagg,
SURGEON DENTIST,
INFORMS the Public, that he practi-
 ces in all the branches, with improvements; transplants
 both live and dead Teeth with greater convenience and gives
 left pairs, than heretofore practiced in Europe or America.
 Sets up Hare Lips—cures Ulcers—extracts Teeth and Stumps
 or Pains, with ease—reinstates Teeth and Gums, that are
 much depreciated by nature, carelessness, acids, or corroding
 medicines; fastens those teeth that are loose (unless wasted
 at the roots); regulates teeth, from their first coming, to pre-
 vent pain and Fivers in children; assists nature, in the
 extension of the jaws, for a beautiful arrangement of a se-
 cond set of teeth, and preserves them in their natural white-
 ness, entirely free from all scorbute complaints:—When
 thus put in order, and his directions pursued, (which are
 simple) he engages, that the further care of a dentist will be
 wholly unnecessary.—Eases pains in teeth, without drawing;
 stops bleeding in the gums, jaws or arteries; lines and plumbs
 teeth with virgin gold, foil or lead; fixes gold roofs, and
 pilates, and artificial teeth of any quality, without injury
 to, or independent of the natural ones, greatly assisting the
 pronunciation and swallow, when injured by natural or o-
 ther defects.

A room for the practice, with every
 accommodation at his house, where may be had Dentifrice,
 Tinctures, teeth and gum Brushes, Mastic, &c. warranted
 approved and adapted to the various ages and circumstances.

Also, Chew-sticks, particularly useful in clen-
 ing the teeth and preserving a natural and beautiful white-
 ness; which medicine and chew stick are to be sold by
 wholesale and retail, that they may be more extensively
 useful.

Dr FLAGG, has a method to furnish
 choice ladies and gentlemen or children with artificial teeth,
 gold gums, roofs or palates, that are at a distance or cannot
 attend him personally.

Cash given for handsome and
 healthy live **TEETH**.

For the high encouragement and
 confidence reposed by the numerous and respectable patrons
 of Dr FLAGG, he would render his thankful acknowledg-
 ments.

The candour and liberality manifested
 towards him in general have been such, as to operate as a
 forcible inducement to consider himself as a citizen. Flattered
 by such attentions, he hopes to deserve them, and only wishes
 a continuance of their suffrages but by meeting them.

He is sorry thus publicly to observe,
 that some illiberal and unjust insinuations have been propa-
 gated, to bias the minds of individuals, and give a false colour-
 ing to his professional reputation. These good natured peo-
 ple have even ventured so far as to say, that undue advantage
 has been taken of those who have applied for his assistance,
 by extorting from them, a sum beyond the bounds of their
 expectation.

To confute any of the like slander in
 future, he declares that his fees may be always known previ-
 ous to his operating, and the person at free liberty to employ
 him or seek assistance elsewhere.

As the summer is advancing, and the
 acids of both green and ripe fruit prove detrimental to such
 Teeth as are defective, he would recommend particular at-
 tention, in due season, especially to the front teeth, together
 with such Stumps as remain in front. To prevent a further
 decay is easily prevented except two thirds of the enamel be
 destroyed—every branch of his profession is accomplished
 with the greatest facility and ease.

Any one calling at No 47, Sudbury-
 Street, will find every accommodation agreeable to what has
 been represented in the Hand bills and former publications,
 of
JOSEPH FLAGG

Boston, June 4

TO BE SOLD.

Fig 79 —Flagg's reply in the *Columbian Centinel*, June 4, 1796

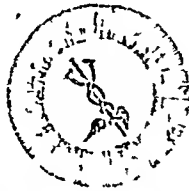
Paine's remarks apparently failed to shame Flagg's enemies, for they continued "then groundless malice" so that Flagg found it neces-
 sary to resort to public print to refute their insinuations. This is to be
 found in the *Columbian Centinel* of June 4, 1796, in an advertisement.
 The last half, Fig 79, is particularly interesting, for it gives us some
 information as to the controversy then existing.

"For the high encouragement and confidence reposed by the num-
 erous and respectable patrons of Dr Flagg, he would render his thank-
 ful acknowledgments. The candour and liberality manifested toward
 him in general has been such, as to operate as a forcible inducement
 to consider himself as a citizen. Flattered by such attention, he
 hopes to deserve them, and only wishes a continuance of their suf-
 frage but by meeting them.

He is sorry thus publicly to observe, that some illiberal and
 unjust insinuations have been propagated, to bias the minds of in-
 dividuals, and gave a false colouring to his professional reputation.

These good natured people have even ventured so far to say, that undue advantage has been taken of those who have appealed for his assistance, by extorting from them, a sum beyond the bounds of their expectation —

To confute any of the like slander in future, he declares that his fees may be always known previous to his operating, and the person at free liberty to employ him or seek assistance elsewhere "



JOSIAH FLAGG,

Surgeon Dentist.

Informs the public, that he practises in all the branches with improvements [&c] Transplants both live and dead Teeth with greater convenience, and gives less pain than heretofore practised in Europe or America --- Saws up Hare Lips, --- Cures Ulcers --- Extracts Teeth and stumps or roots with ease, --- Reinstates Teeth and Gums, that are much depreciated by nature, carelessness, acids or corroding medicine, --- Fastens those Teeth that are loose (unless wasted at the roots) regulates Teeth from their first coming to prevent fevers and pain in Children --- Assists nature in the extension of the jaws, for the beautiful arrangement of the second Set and preserves them in their natural whiteness entirely free from all scorbutic complaints --- and when thus put in order, and his directions followed (which are simple) he engages that the further care of a *D. nist* will be wholly unnecessary --- Eases pain in Teeth without drawing, --- Stops bleeding in the gums, jaws or arteries, --- Lines and plumbs Teeth with virgin GOLD, FOIL, or LEAD, --- Fixes Gold Roofs and Palates, and artificial Teeth of any quality without injury to and independent of the natural ones greatly assisting the pronunciation and the swallow, when injured by natural or other defects --- A room for the practice with every accommodation at his house where may be had Dentifices Tincture Teeth and Gum Brushes Mastics &c warranted approved and adapted to the various ages and circumstances --- Also Chew-sticks, particularly useful in cleaning the fore Teeth and preserving a natural and beautiful whiteness, which Medicine and Chew-sticks are to be sold wholesale and retail that they may be more extensively useful

* * Dr FLAGG has a method to furnish those Ladies and Gentlemen or Children with artificial Teeth, Gold Gums, Roofs, or Palates, that are at a distance and cannot attend him personally

ESTD CASH Given

for Handsome and Healthy LIKE TEETH,

At No 47, Newbury-Street, BOSTON, (1796)

Fig 80—1796 broadside of Josiah Flagg, Jr, a means of advertising frequently resorted to by such men as the Greenwoods and others (Reproduced here by courtesy of the Massachusetts Historical Society)

Flagg's references to the use of fresh fruits and greens in the summer are certainly interesting and illustrate the change in both concept and value of such vegetables and fruits in our modern diet. On the other hand our experience with fruit acids and their injurious effect on the teeth has proved that Flagg's warning was justified.

The broadside issued by Flagg in 1796, Fig 80, contains the same three symbols as used by him on a previous one. This document likewise graphically portrays just what constituted the practice of dentistry at that time, also it informs us of a method utilized in building their practices. Associating the sign of medicine with the care needed in brushing the teeth if they are to be preserved, otherwise the "sinister" results of neglect will be the ultimate loss, is but the forerunner of some of our modern scarce dental advertising such as "four out of five" will have it, etc.

The wording conforms closely to his newspaper notices of that date. From it we learn that *regulating of children's teeth*, the *sewing up of hare-lips*, the use of *gold obturators*, *gold plate* and *gold fillings*, etc., constituted the practice of dentistry in this country almost from the very beginning.

A copy of the original document, Fig 80, as well as the directions for using Flagg's dentifrices, Fig 81, are now in the *Massachusetts Historical Society*, through whose courtesy I am permitted to reproduce them.

On July 22, 1797, there appeared another notice in the *Columbian Centinel*, in which he announced again his desire to cater to the children, recommended proper care of the first set of teeth in order to prevent the decaying of the second, and advised keeping the mouths of children in a healthy condition, he thus was among the first to advocate in children oral hygiene procedure. He also adopted a plan, thought by a number of men within recent years to be a new departure, to look after the child for a yearly fee.

"DR FLAGG—returned to Practice

He has taken the Tontine No 14, and continues his profession as Surgeon Dentist, in all and every useful improvement, particularly in Artificial Teeth, for service as well as ornament, and of all qualities, and Teeth extracted with more skill and ease to those in pain, as the town and its vicinity have long experienced, than can be expected from the common Practice. As he is again settled and intends to every attention at this house, and the calls abroad, he will feel himself again reinstated if the Public will honor him with the attendance upon their children as formerly, by the year, to those whom he has been honored. The Public may depend upon his skill in the practice towards them, to be of the utmost advantage to their second sets of teeth, and to children teething in pain—he can prevent those subject to fevers and fits, from any difficulty on the first visit. His Hand-Bills will explain more fully.

DENTIFRICES TINCTURES, BRUSHES, &c

by wholesale and retail, and adapted to the several ages and complaints, and for the different climates to keep, and with proper and simple directions for their several uses, and rooms."



DIRECTIONS -by DR J
FLAGG, to use his DENTIFRICES,
or TINCTURES, (viz) Use Cold
Water, and a Brush, every day after
rubbing the Gums hard with your

finger, to make them bleed what you can—rinse them
clean with Cold Water, holding the water in your mouth
untill the keenness of the air is off before you apply it to
your teeth After which use with the Brush the war-
ranted and approved Antiscorbutic *Tincture*,
But not rinse it off for some time —It may be used
every day for the first week or ten days, and once or twice
a week afterwards at discretion —When once in

good order, there is no further need of a DENTIST or
Medicine —NB Fear not the stiffness

of the brush, — and if your *Tincture*
is too potent for the Gums, add to it,
Port Wine to your liking, But
not mix the whole in the trial —

To Mr J Green.

Josiah Flagg

May, 1800

Fig 81 —Directions for the use of Flagg's Dentifrices (Reproduced here by permission of the Massachusetts Historical Society)

During the War of 1812, Josiah Flagg enlisted in the naval service, only to be captured shortly thereafter by the British and taken to England as a prisoner of war. While on parole during the years 1813-1815, he continued the practice of dentistry in London. His reputation as a well-known Boston dentist had preceded him to England before the war. His social standing brought him in contact with such teachers

as Joseph Fox (1776-1816) and Sir Astley P. Cooper (1768-1841), and in the pursuit of further knowledge of his profession and the desire to master the methods of instruction used by the medical teachers of London, he frequently attended the lectures and clinics of Cooper at *Guy's Hospital*

As history records, on one of these occasions during a lecture,⁸ Sir Astley Cooper "failed in his attempt to extract a bicuspid root, and turned to Mr. Flagg who was with him on the platform, and said 'Perhaps our American friend, who is a skillful dentist, can assist us in this dilemma.' Flagg arose, bowing to the teacher and the class, as he produced from his pockets a graver (such as is used these days by jewelers who do engraving), his favorite tooth extracting instrument, which he thrust between the root and the alveolus so deftly that the obdurate root flew from its socket half across the room. Professor Cooper was astonished, and thanking Mr. Flagg, said to the class 'Gentlemen, that was a marvelous feat, a most marvelous feat.' When the lecture was finished, Sir Astley again thanked Flagg for his skill, and asked him to accompany him to a friend's, who was a portrait painter, as he wished to have his (Flagg's) likeness painted."

We will have to accept the story as being true, but the part that relates to Flagg having his portrait painted at that time, cannot be correct. In the water color, the date 1807 appears twice, above the skeleton in the closet, and upon the cover of the instrument case on the table. It is signed with the initials of the artist, J. R. S. It is the labor of either John Raphael (1752-1812) or John Ruben Smith (1775?-1849). The first mentioned was the father, who worked only in pastels or oil, living in and around London, and who died in 1812, whilst the son visited this country, and in 1807 painted in Philadelphia, using only water colors. We thus find that the father died prior to Flagg's reaching England, and as the medium used to paint being water color, used exclusively by the son, the painting must have been done in Philadelphia or Boston by John Ruben Smith in 1807 as recorded, therefore Sir Astley Cooper could not have had much to do with Flagg's portrait.

After the close of the war, he applied for a passport, which was granted and dated Sept. 14, 1815, intending to return to Boston and give to his people the benefit of his expanded knowledge and skill. A few hours before his expected landing, he was shipwrecked in New York harbor, but reached his home in Boston suffering severely from the results of his exposure. His strength gradually failed and as winter approached, trusting that the warmer climate of the south would benefit him, he went to Charleston, S. C.,¹⁰ where a few days after his arrival, he contracted yellow fever which prevailed at that time, and there died on September 30, 1816, aged 53 years. He is buried in that city.

Beginning with Josiah and for over a century, the Flaggs played an important part in the rise and progress of dentistry in this country. Josiah's ready wit and humor made him appreciated wherever his lot was cast, for it is said of him that he had a kind, jovial disposition and was a gentleman in all that the word implies.

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CHAPTER XII

JOHN GREENWOOD, PIONEER AMERICAN DENTAL SCIENTIST (1760-1819)

His Revolutionary and Dental Services

JOHN GREENWOOD was the second son of Isaac and Mary Fans Greenwood, born in Boston on May 17, in the year 1760, and educated, until the age of 13, in the *North Writing School*, then located at the corner of North Bennet Street and Love Lane, near which now stands the *Ebot School*. His early years as well as his dental career might best be described by John himself, for the record of events during the Revolutionary War, 1775-1783¹ was written by *John Greenwood* during the year 1809, then rewritten and annotated by his son, *Isaac John Greenwood* just before his death in 1865. Though ready for publication at that time, it was not until 1922 that his great grandson, the late Joseph Rudd Greenwood, published this interesting record.

There are other original manuscripts written by John that are as yet unknown to historians. They relate to his professional life and prove a gold mine of useful information hitherto unrecorded or unknown. We now have for the first time authentic data upon which to write a correct history of John Greenwood's activities as well as those of his contemporaries. Having been written by one who actually participated in dentistry's early days in America, we are able to eliminate much of its traditional lore and instead supply definite facts, dates, names and actual events.

The most important and helpful of these unpublished manuscripts was John's *Memoirs of his Early and Professional Life*¹⁵ written originally about 1807. In 1859 his son Isaac John, gathered together these "notes" and added to them the final years of his father as well as other events of that period. In 1902 Isaac J(ohn) Greenwood, the grandson, rewrote the story and entitled it *Stray Notes on Dentistry in America*.² The introduction briefly considers the important steps in dentistry from 1180 to 1798, then follows the important early days in this country, supplying us the names of many unknown early dental practitioners, dates as well as copies of the newspaper advertisements. Without this help, this history could not have been prepared.



Fig 82—Location of Colonial dentists in New York, most of whom were Greenwood's contemporaries. 1 James Mills 1735, credited as America's first *tooth drawer*. 2 Michael Poree 1769, 3 John Baker 1768, 4 Dubuke 1775, 5 John Wooffendale 1791, 6 Dastuge 1780, 7 Daniel 1776, 8 Hamilton 1769, 9 Greenwoods Isaac, Jr, 1784-5, John, 1785-88, Clark, 1789-1810, 10 J Browne 1784, 11 Robert Wooffendale 1767, 12 William Parkhurst 1806, 13 Ruspini 1787, 14 Le Myeur 1783, 15 R C Skinner 1791, 16 Fisher 1790, 17 John Greenwood 1791-97, 18 McKinze 1779, 19 Salse 1787, 20 Hornby, 1772, 21 First dental clinic, Dispensary of New York, 1792, 22 Hospital, 22 Alms House (Lower portion of map of New York in 1789) (Courtesy of The New York Historical Society.)

Another important manuscript was *The Portraiture of Washington*³ etc, prepared by Isaac J (ohn) Greenwood in 1862. Part of this appeared as *Remarks on the Portraiture of Washington* in the *Mazagine of American History*⁴ January, 1878. It is from this work that we were able to trace the story of Washington's dentures, the various letters exchanged between the two as well as other letters and documents that established

certain definite dates, names and events that related to Washington's paintings. According to John Greenwood's will, the original manuscript and important Washington letters were to be left to *The National Museum* upon the death of the last direct male heir, *Joseph Rudd Greenwood*. In 1936, they were presented to the *Library of Congress*, where they are now to be found.

Besides the above works, all originally written by John Greenwood, there is yet another which we consider the most important Greenwood document that has come down to us. Until now, John's fame rested upon his being *The Dentist to George Washington* and upon the dentures he constructed for him. This is so universally accepted that it apparently remains the important object to those who speak or write about him, yet nothing could be further from the truth. Unfortunately little is known or has been written of his substantial scientific qualifications.^{16 18}



Fig. 83 —John Greenwood, aged 25. Miniature painted by Ramage, 1785. (Courtesy of the *New York Academy of Medicine*.)

"*Observe, Compare, Reflect and Record*" were apparently John Greenwood's foundation stones for his dental theories and practice, and as time went on and experience was gained, he began to observe facts that made it necessary to disagree with the great John Hunter (1728-1793). Fortunately for us today, he annotated his copy of Hunter's *Natural History of the Human Teeth* 1778 edition, and thus left behind a record of his own observations. In 1789 and in 1809 he made therein some twenty odd recordings, some of which showed that he was in accord with Hunter and in others he most emphatically took exception. In these notes he attributes decay of the teeth to be external in origin, due either to acid formations, a chemical concept, or to bacteria, thus

anticipating Miller's micro-organism theory by nearly a hundred years. Here, for the first time, we find Greenwood advancing three new facts heretofore not recognized or considered in dental literature. It is for this reason that we have accorded him the honor of being the first *American Dental Scientist*.

In a letter to Isaac John Greenwood in 1847, the Dean of the *Baltimore College of Dental Surgery*, William R. Handy (1811-1858), wrote "The Faculty values the Presentation most highly not only in consequence of the distinguished individual himself but most especially as being the *Father of American Dentistry* as well as the Dentist to the Illustrious Father of our Glorious Republic," a most fitting tribute to the man.⁵

These manuscripts as well as other Greenwood material were placed at our disposal and permitted to be photostated by the late Joseph Rudd Greenwood. The *Stray Notes* was apparently sent by Isaac J. Greenwood, in 1905, to Dr. Edward C. Kirk and he, in turn, presented it to me. We hereby acknowledge our indebtedness to these gentlemen. The late Mr. Joseph Rudd Greenwood was most kind in helping to piece together the Greenwood history, and since his death, his sisters, the Misses *Mary* and *Eliza Greenwood*, have assisted in many ways.

From 1838, Dr. E. Bryan had access to the data on the *Revolutionary Service of John Greenwood*, "written from memory in New York, February 14, 1809," part of which he published in 1839.⁶ On page 3 of his *Revolutionary Service*¹ (1922) John Greenwood stated

"But as children were not at that time taught what is called grammar, or even correct spelling, it must not be expected to find them in this relation. All that we learned was required by the mere dint of having it thumped in, for the two masters, who had to overlook and manage some 300 or 400 boys, could pay little attention to us except so far as flogging went, which right was rather freely indulged in.

"While I was at school the troubles commenced, and I recollect very well of hearing the superstitious accounts which were circulated around. People were certain a war was about to take place, for a great blazing comet had appeared and armies of soldiery had been seen fighting in the clouds overhead, and it was said that the day of judgment was at hand, when the moon would turn into blood and the world be set on fire. These dismal stories became so often repeated that the boys thought nothing of them, considering that such events must come in the course of nature. For my part, all I wished was that a church which stood by the side of my father's garden would fall on me at the time these terrible things happened, and crush me to death at once, so as to be out of pain quick.

"It must not be expected that I can give day or date in my relation, as I cannot remember them.

"I remember what is called the 'Boston Massacre,' when the British troops fired upon the inhabitants and killed seven of them, one of whom was my father's apprentice, a lad eighteen years of age,

named Samuel Maverick. I was his bedfellow, and after his death I used to go to bed in the dark on purpose to see his spirit, for I was so fond of him and he of me that I was sure it would not hurt me. The people of New England at that time pretty generally believed in hobgoblins and spirits, that is the children at least did.

"About this period I commenced learning to play upon the fife, and, trifling as it may seem to mention the circumstance, it was, I believe the sole cause of my travels and disasters. I was so fond of hearing the fife and drum played by the British that somehow or other I got possession of an old split fife, and having made it sound by putting up the crack, learned to play several tunes upon it sufficiently well to be fifer in the militia company of Captain Gay. This was before the war some years, for I think I must have been about nine or ten years old.

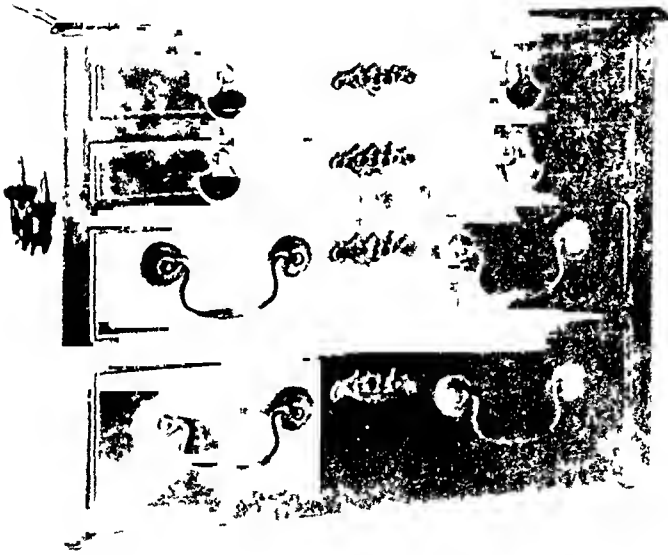


Fig 84—Small mahogany chest of drawers (17"x13"x9") made by John Greenwood at 14 years of age when an apprentice to his uncle John Greenwood at Falmouth (Portland), Maine, 1774-1775, and later used by him in his office as an instrument case. The two upper drawers are opened by a secret wooden spring on the bottom of each. (Courtesy of the New York Academy of Medicine)

"I saw the tea when it was destroyed at Boston, which began the disturbance, and likewise beheld several persons tarred and feathered and carried through the town, they were tide-waiters, custom-house officers—I think they called them informers.

"At the age of thirteen, I was sent eastward to a place called Falmouth (Portland), 150 miles from Boston, to live with my father's only brother, whom I was named after. He was a cabinet-maker by trade but had concerns in the shipping business likewise, and was looked

upon to be an able, or rich man. His wife was dead, he had no children, and I was his favorite. The whole country at this time was in commotion and nothing was talked of but war, liberty, or death, persons of all descriptions were embodying themselves into military companies, and every old drunken fellow they found who had been a soldier, or understood what is called the manual exercise, was employed of evenings to drill them. My uncle was lieutenant of an independent company (the Cadets), and of course I was engaged to play the fife while they were learning to march—a pistareen in evening for my services, keeping me in pocket-money. Being thus early thrown into the society of men and having, as it were, imbibed the ardor of a military spirit, being moreover the only boy who knew how to play the fife in the place, I was much caressed by them.

“I stayed with my uncle two years, until the time arrived when we had an account that the British troops had marched out of Boston, attacked the country people at a place called Lexington, and killed a number of them. I had frequently been inclined to return to Boston that I might see my father, mother, sister, and brothers, but as I was not permitted to do so, I took it into my head, saying nothing to any one about it, to go alone on foot in the beginning of May, 1775. The distance was 150 miles and the country so thinly inhabited that I had to traverse at times, woods seven miles in length, and I had never traveled before more than three or four miles by land into the country. I concluded to set out on a Sunday, for then they would not be so apt to miss me, and not having mentioned my determination of going, they would not think it possible so young a boy would, without any manner of cause, attempt such a journey. My reason for going was I wished to see my parents, who, I was afraid, would all be killed by the British, for, as I observed before, nothing was talked of but murder and war.

“Sunday morning, when in New England all is still and no persons are in the streets, having eaten my breakfast, I took a handkerchief and tied up in it two or three shirts and a pair or two of stockings, and with what clothes I had on my back and four and a half pistareens in my pocket, jumped over the fence in the back yard and set off. I walked rapidly through the town without meeting any one I knew, as it was breakfast time, and when once beyond the outskirts, being a very strong-constituted boy, off I went with a light heart and a good pair of heels, sometimes I ran and sometimes trotted like a horse, and I really believe that I accomplished forty miles the first day. I do not recollect that I was the least tired during my whole journey. As I traveled through the different towns the people were preparing to march toward Boston to fight, and as I had my fife with me—yes and I was armed likewise with my sword—I was greatly caressed by them. Stopping at the taverns where there was a muster, out came my fife and I played them a tune or two, they used to ask me where I came from and where I was going to, and when I told them I was going to fight for my country, they were astonished such a little boy, and alone, should have such courage. Thus by the help of my fife I lived, as it were, on what is usually called free-quarters nearly upon the entire route.

“As high as I can remember it took me four days and a half to reach Charlestown, opposite Boston, but on Charlestown Neck there

stood a Yankee soldier or sentry who stopped me, telling me that I must not go past him. I attempted, however, to get by him and run, when another fellow caught me and carried me to the guard-house, which was a bun standing not far off. Here, I was kept all night, when they let me go, informing me that in order to go down to Charlestown ferry, a pass must be obtained from General Ward, at Cambridge, but by no means would I be permitted to go into Boston to see my parents, as all communication was cut off between the British and the country people. The war had begun, they told me, the British had marched out into the country to Lexington, to the tune of 'Yankee Doodle,' but they had made them dance it back again.

"I immediately set off for Cambridge after my pass, got it, and traveled back for Charlestown ferry, but I was not allowed, after two years' absence from home, to go over and see my parents. Everything on the opposite shore was familiar to me, and I was well acquainted with the person who kept the ferry, Mr. Enoch Hopkins, whose son used to go to school with me. There I stood alone, without a friend or a house to shelter me for the night, surrounded by women and children, some crying and others in different situations of distress, for the Boston people were flocking out of town over the ferry in crowds, with what little furniture they were permitted to take with them. The British governor, or, more properly calling him, 'Granny Gage,' gave permission to the inhabitants, before the battle of Bunker Hill, to leave the town, but placed a fellow by the name of Cunningham (the notorious master of the New York provost during the war) at the ferry stairs, to search their trunks and little bundles and take from the women and children their pins, needles, and scissors, in short anything he pleased, which, with his noted cruelty, he would throw into the river while the poor helpless creatures were weeping. O British magnanimity! Brave fellows!

"This, however, is nothing to their boasted valor. They dared not show their faces to us over their breast-works after Bunker Hill frolic. They then found out to their sorrow what kind of stuff Yankees were made of, they lost or killed and wounded in that battle upward of 1100 of their best troops, and we lost about 200. The British had ten men to our one, as history will inform you, and I was an eyewitness.

"But to return, Charlestown was at the time generally deserted by the inhabitants, and the houses were, with few exceptions, empty, so, not knowing what to do nor where to go and without a penny in my pockets, if I remember rightly, I entered a very large tavern that was filled with all descriptions of people. Here I saw three or four persons whom I knew, and, my life sticking in the front of my coat, they asked me, after many questions, to play them a tune. I complied forthwith, but although the fife is somewhat of a noisy instrument to play upon, it could hardly be heard for the din and confusion around. Such a scene cannot be described, nor hardly conceived, save by those who have beheld something similar to it.

"After I had rattled off several tunes, there was one Hardy Pierce who, with Enoch Howard and three or four others, invited me to go up to Cambridge to their quarters, as they called it. When there they tried to persuade me to enlist as a fifer, telling me that

it was only for eight months, and that I would receive eight dollars a month and be found in provisions, moreover, they calculated to quickly drive the British from Boston, when I would have an opportunity of seeing my parents. I waited for four or five days to see if I could get into Boston, living meanwhile in their quarters. The army which kept the British penned up in the city at the time was no better than a mob, the different companies not being formed as yet, that I could observe, into regiments or divisions. This was in the latter part of May, 1775. Concluding finally that it would be best for me, I enlisted for eight months in the company of Captain Bliss, which was quartered in the house of the Episcopal minister, who, with his family, had deserted it at an early period of the disturbances, and gone into Boston.

"There we stayed, to call it living is out of the question, for we had to sleep in our clothes upon the bare floor. I do not recollect that I even had a blanket, but I remember well the stone which I had to lay my head upon. Not more than two or three weeks passed by when I began to think if I had not some friend or relation near Cambridge, and happened to recollect a great-aunt then living in a town twenty miles from the camp. I procured a furlough or permit from my captain one morning, to go and see her, and set off briskly after breakfast, without a penny in my pockets. With a spirit too proud to beg a mouthful to eat I traveled onward, and late in the afternoon arrived within a few miles of the town, which is called Andover. I was now so hungry that I thought a piece of live sheep in the neighboring field would be relishable, but, although so near the town, at this point, strange as it may appear—unrecountable, improbable, or whatever else you may please to call that which I am about to relate—I yet assert it as a fact, and am willing to take my oath, that as I was proceeding onward there was a certain something that prevented me from going forward, it seemed to push me back, or, as it were, insist on my returning. I attempted still to advance but could not, yet on wheeling around to retrace my footsteps, I could do so without uneasiness and with pleasure, moreover I traveled very fast.

"I proceeded a considerable distance on my way back, as I walked some time after dark, but became so fatigued and hungry that I was obliged to stop at a farm-house to beg something to eat and ask permission to lie on the kitchen floor that night. They gave me some mush and milk and a blanket to lie down on, and I was soon sound asleep, but early the next morning, before the people were stirring, I had again started for Cambridge, or the camp.

"At dawn of day I heard the firing of great guns, which caused me to quicken my pace, for I supposed the armies were engaged and, being enlisted, I thought it was my duty to be there. By ten o'clock I had reached Cambridge common, where I met a man whom I knew, by the name of Michael Groul, who informed me that my mother, who had come over the day before from Boston, was in his house, where he had left her only a few minutes before. His house he told me, was just behind the meeting-house. When I reached the house I had been directed to I found my mother, surrounded by weeping women and children. She had no sooner seen me than she

exclaimed, 'Johnny, do get me away from here!' and appeared no more frightened than if nothing had been the matter 'Go,' said she, 'up to Cousin Fuller's and get his (riding) chair immediately' It was near by, so off I set, but found that Mr Fuller, who was one of the leading characters in the Provincial Congress, had gone to Watertown, so I procured a horse and side-saddle, but found on returning to the house where I had left my mother that she had gone "

Koch, on page 85 of Vol I of his *History of Dental Surgery* wrote

"Whether an incident in his early military career may not first have brought him to the attention of General Washington, and formed an acquaintance that later became the professional introduction of Mr Greenwood, is problematical Greenwood's mother left Boston to get her boy out of the 'rebel' army, and was prevented from returning to Boston, for a number of weeks, by the Continental authorities at Cambridge, until General Washington came to take command of the army, when she applied to him for permission to return, which was very graciously granted, but, it is said, against the vigorous protest of many of the Massachusetts officers "

Greenwood gave an entirely different version of this episode, for he continued

"I forgot to mention that as soon as my father heard I was among the rebels he went to Governor Gage and got a permission for my mother to visit the American camp, provided with money to hire a man in my stead She was also to procure a permit for me to go into Boston Accordingly she came over the day before the attack on Bunker Hill, but was not allowed to return, although she had powerful friends and relations among the rebels, as the British called us After the arrival, however, of General Washington, when she had been absent from Boston then about six weeks, she applied to him in person He consented immediately—and that against the will of a great many of the officers and others—to her returning to my father She was the first and only person who had permission to go into Boston after the battle of Bunker Hill I did not see my mother again until she left the camp, and meanwhile she had believed me dead, as some person informed her, a few days after the battle, that I had been killed in the engagement "

Instead of serving but eight months in the army, Greenwood continued for twenty, leaving on December 27, 1776, and then returning to his home in Boston During the years 1777 and 1778 he was engaged for a time in codfishing¹ He again felt the call to arms and re-enlisted at Boston, February 13, 1778, as a fifer, receiving his discharge May 13, 1779 At the age of 19 he decided to enter the Navy's service as a midshipman, which he did early in January 1780, where he continued for three years, until the spring of 1783 During his service he was four times made a prisoner of war He "set out once more for New London, where I arrived safe and went on to Boston "

His *Revolutionary Service* having been published in detail,¹ we will quickly pass over these years and begin with his introduction into dentistry

In a note on Page 140 we find the following recorded ¹

"It came about that with business in a state of stagnation after the war, Greenwood, by this time a thoroughbred seaman, could no longer find employment, and so, after again working for a time in his father's shop at the turning business, he set out for New York. He traveled, as he says, with a light heart, in his pocket eight dollars which he had saved up, and in his kit, with some tools, a few fifes, drumsticks, lemon squeezers, and hum-tops. At No. 24 Old Slip he found his elder brother, Isaac Greenwood, occupying a room in Mr. Robertson's house and there pursuing his father's profession. He himself procured board and lodging at twenty shillings a week with a Mr. Lewis Harrington, at No. 199 Water Street, on the northeasterly corner of Wall Street, in a house belonging to Mr. Archibald Kennedy. His eight dollars he lent to a friend to keep him from jail, and then tried, unsuccessfully however to get to sea again. Finally he hired half a shop in the same building in which he boarded from a Mr. Quincy, instrument maker, and helped that gentleman to rub up and repair old quadrants and compasses. He also made some hickory walking-sticks, and these, as the streets were dangerous after night-fall, found a temporary sale. Altogether he earned just about enough to pay his expenses, but had to debai himself, he says, of a pint of beer when the day's labor was over."

Greenwood's Entry Into Dentistry

History records that John Greenwood began his dental practice in New York City by inserting a newspaper advertisement in *Rivington's New York Gazette*, dated December 24, 1783. This we have already shown to be erroneous, being that of his elder brother, Isaac, who arrived in November of that year and immediately took up the profession of his father. (See Fig. 59.)

John Greenwood *shortly after* reached New York, and as above stated, became associated with Mr. John Quincy, an instrument maker. However, he remained with him only a short time. The *Stray Notes* manuscript fails to account for the intervening year, but records the following: "he began his New York practice, issued a hand-bill in 1785, and early in 1786 we read what was his first newspaper announcement in the *Daily Advertiser* of February 28, 1786." In the *Historical Society of Pennsylvania*, in Philadelphia, there is to be found an important document that proves helpful in clearing up Greenwood's whereabouts during the year 1784. It is a record of a coroner's inquest held in Cumberland County, Pennsylvania, on the 10th day of December, 1784, of which we present a photostat copy, and on which appears the signature of John Greenwood of Middletown Township, as one of the witnesses and as a resident of the above county. As Greenwood repeatedly records that he began his dental practice in 1784, this might lead one to assume that he was practicing dentistry during that year while in Pennsylvania.

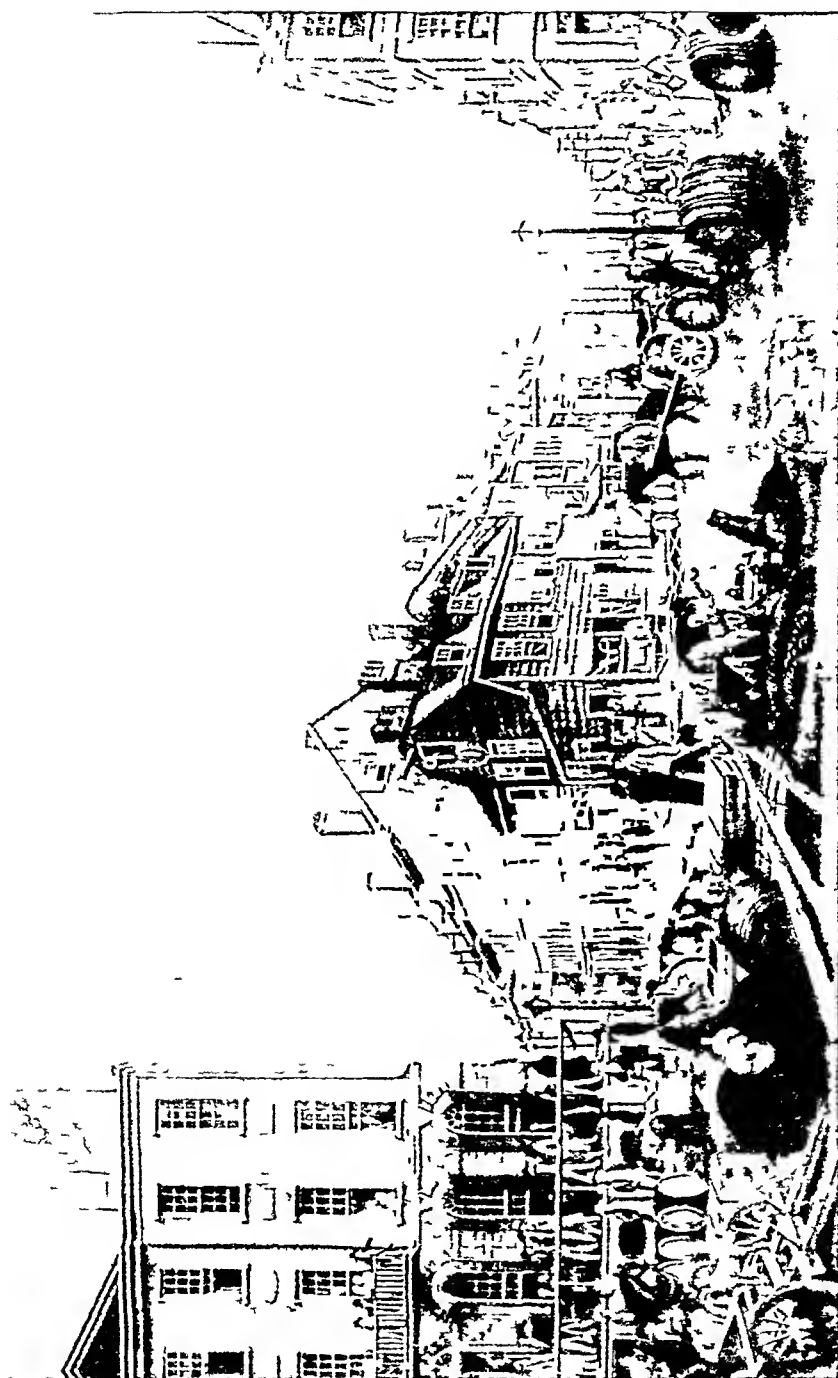


Fig 85—No 199 Water Street was opposite the *Tontine Coffee House* on the north-east corner of Wall Street. It was here that John Greenwood resided in 1783 and in 1785 began to practice dentistry, remaining there until his marriage in 1788. (From a painting by Francis Guy, and reproduced here by courtesy of *The New York Historical Society*.)

had never witnessed their construction, indeed, owing to the early age at which he entered the army, he received no instruction at all in any mechanical branch pursued by Mr Isaac Greenwood of Boston "

In Harris' *Dictionary of Dental Science*⁷ the following biographical entry of John Greenwood is found

"Soon after having engaged in this new business, Dr Gamage, requested Mr Greenwood to extract a tooth for one of his patients, which he accomplished very successfully This was the commencement of his practice as a dentist He was, however, for some time after this engaged in the manufacture of nautical and mathematical instruments, and ivory turning, and practiced dentistry as opportunity offered The demand for his services, however, in the last mentioned capacity, soon increased to such an extent that he was compelled to abandon his other occupations, and to procure the assistance, first, of William Pitt, and afterwards of Clark Greenwood, his brothers, to enable him to meet his numerous professional engagements Up to this time, 1786 or '7, he occupied an office near the Old Tontine Coffee House, but he now removed to the corner of William and Beekman streets, opposite General Washington's office Here he made the acquaintance of General Hamilton, Colonel Burr, and other officers of the army, and influential individuals He, also, soon became acquainted with General Washington, for whom he manufactured a number of sets of teeth "

It was in the fall of 1785 that John Greenwood upon his return to New York began the practice of dentistry, ("Stray Notes", pp 14, 27), first by issuing handbills or broadsides Fortunately a copy of this historical document is still preserved and is herewith reproduced (Fig 87) Greenwood, in preparing this as well as other early advertisements, closely followed the wording of that of Watts and Rutter of London

That John Greenwood did not begin the practice of dentistry in New York in 1784 has been further confirmed in another record among the Greenwood items now in *The New York Historical Society*, an undated four-page statement in the handwriting of John himself From it we learn that a misunderstanding arose between his brother Isaac and himself and that the latter left New York for Charleston in the early spring of 1785 During that time John had again "taken to the sea" in partnership with Mr Quincy, but after several unprofitable voyages he turned his mind to wood-carving, etc, instead John then continues "At that time my Brother (Isaac) had left Charleston and gone home to Boston Why did he not come here? for I had not as yet commenced the Dental Business More than that he well knew that I never even saw a person make a tooth in my life, nor have I ever seen any one person fit or make an artificial Tooth " When John did return after Isaac had left, he rented from Mr Quincy a part of his premises for repairing instruments and wood-carving "Out of fun" he continues, "one day by the desire of Dr Gamage, I attempted

I. GREENWOOD,

SURGEON DENTIST,

PRESERVES the Teeth and Gums, by removing an infectious Tartar that collects round the Neck of the Teeth, preventing the Gums from adhering to them, and, if not separated and cleaned, will strip them from the Gums, and make them to grow loose and drop out. This Tartar is scaled off without causing the least Pain, and the blackest Teeth made firm and white.

Draws TEETH and STUMPS.

ARTIFICIAL TEETH set in so firm (without drawing Stumps or causing the least Pain) as to eat with them, and so exact as not to be distinguished from Natural. They are not to be taken out by Night, as is by some falsely suggested, but may be worn Years together. They give a youthful Air to the Countenance, and render Pronunciation more agreeable and distinct. In a Word, both Natural and Artificial are of such real Service as are Worthy the Attention of every one.

Said *GREENWOOD* has a Tincture that preserves, and prevents the further Decay of, the Teeth and Gums, with Directions, at *Four Shilling* per Phial, which he will warrant, if properly applied.

N B His *PRICES* are low, to give every Person an Opportunity to be benefited by him — attends abroad, on sending Directions to No 199, *WATER-STREET*, opposite the Coffee House, New-York.

At 1091, Printed by J. GREENLEAF, No 20, Water Street

Fig 87 —First handbill or broadside of John Greenwood at the time he began the practice of dentistry. Issued, as dated upon the back, in 1785 (Author's collection)

Early in 1786, we have what appears to be John Greenwood's first New York newspaper announcement, Fig 88, (*Daily Advertiser*, February 28, 1786)

John Greenwood,

ENCOURAGED by the success of his practice, begs leave to acquaint the public, that he preserves the teeth and gums, by removing an infectious tartar, that destroys them. and renders the natural purity of the breath offensive; cures the scurvy in the gums, fastens the teeth by causing the gums to adhere to them, he cleanses the teeth, makes them white; substitutes artificial teeth in so neat a manner as not to be perceived from the natural; they give a youthful air to the countenance, and render the pronunciation more agreeable and distinct, in a word both natural and artificial are of such real service as are worthy the attention of every one. Those who may incline to employ him, their favour will be gratefully acknowledged; such as desire his personal attendance will be waited on by leaving their names and places abode

Feb. 27 tuf tf

Fig 88 —John Greenwood's first newspaper notice *New York Daily Advertiser*, February 28, 1786

No 199 Water Street, now the northeast corner of Wall was then opposite Cornelius Bradford's Coffee House (No 200) then famous for the Liberty Boys, and later known as *Tontine's* The *New York City Directory* for 1786 includes the name of J Quincy, an instrument maker at the above address, with whom John became associated. In 1787 John bought out the business, Quincy returning to Salem, Mass. and the following year he sent for his brother, Clark, to take over the profitable enterprise which he had established so that he might devote his entire

time to dentistry The *Directory* for 1789 lists Clark at that address, where he continued to make instruments until his death in 1810

On April 28 John Greenwood stated (in the same newspaper) he "substitutes artificial teeth in so neat a manner as not to be perceived from the natural, they give a youthful air to the countenance" On November 17, November 20 and December 7 in the *Daily Advertiser*, his announcement reads

"I GREENWOOD
DENTIST,

Real Maker of ARTIFICIAL TEETH,

Carries on that business as usual Makes and Sets in ARTIFICIAL TEETH, so exact as not to be distinguished from the natural, with such firmness as to occasion no inconvenience in eating, and so durable as to continue years without being displaced, unless at the option of the wearer, who can remove and fix them at pleasure, they are not to be taken out at night as some falsely suppose, they add an essential ornament to the mouth, and render pronunciation distinct and pleasing He likewise transplants natural teeth, and fixes them upon gold

The soundest teeth are cleansed and made perfectly white, the gums preserved and cured of the scurvy, by said Greenwood, who applies himself wholly to the above business

He may be spoke with at No 21, John-Street

NB He will wait on such Ladies and Gentlemen as request it, at their houses "

This notice is of great importance as it gives us a definite clue to the date 1786, when John Greenwood began to use gold plates in the place of ivory for dentures

A shorter notice in the *Daily Advertiser* of December 15, 1786 &c, reads

"I Greenwood,
Dentist,
makes and cleans
TEETH
as usual,
at No 21 John Street "

In May, 1787, he moved back to 199 Water Street, and described the location as "opposite the Coffee House "

In the *New York Packet* of Tuesday, August 14, 1787, published on Tuesdays and Fridays by London, there is again an exact copy from the *London Almanacks* of Watts & Rutter's advertisement of 1744, which Greenwood used

"Artificial Teeth,

Set in so firm as to eat with them, and so exact, as not to be distinguished from natural, they are not to be taken out at night, as is by some falsely suggested, but may be worn years together, yet

they are so fitted, that they may be taken out and put in by the person who wears them at pleasure, and are an ornament to the mouth, and greatly help the speech Also, teeth are cleaned and drawn, by

J Greenwood

NB He attends abroad on sending directions to No 199 Water Street, opposite the Coffee House”

The above advertisement of John Greenwood which we find in the New York papers was not repeated, but from November 14 to November 26, 1787, there appeared in the *Daily Advertiser* the following important notice “PERSONS at any distance may be supplied with ARTIFICIAL TEETH by sending an impression, taken in wax, of the places where wanted They render pronunciation agreeable, etc” Here we have a definite record of the earliest use of models in dental prosthesis in this country The idea apparently did not prove satisfactory, for in no other Greenwood announcement is it to be found

“Live Teeth Wanted

For which a Guinea each will be given, by J GREENWOOD, Surgeon Dentist, No 199 Water-Street opposite the Coffee-House

Persons at any distance may be supplied with ARTIFICIAL TEETH, by sending an impression, taken in wax, of the vacant place where wanted They render pronunciation agreeable and distinct, in a word, as there is nothing more beautiful, and of such real service as a good set of teeth, both natural and artificial are worthy the attention of everyone He draws teeth and stumps, and attends abroad on sending directions Nov 14, 1787”

The following notice appeared in Greenleaf's *New York Journal & Daily Patriotic Register*, in which John now calls himself a Surgeon Dentist

“White Teeth
I GREENWOOD,
Surgeon Dentist,

No 199 Water Street, opposite the Coffee House, Encouraged by the success of his practice, begs leave to acquaint the public, that he preserves the TEETH and GUMS, by removing an infectious tartar that corrupts them, and renders the natural purity of the breath offensive, this tartar acquires a solidity equal to stone, the corrosive particles destroy the enamel of the teeth, the body of its causes an inflammation in the gums, and by degrees will strip them from the roots of the teeth, and if not removed, force them out of their sockets—He cures the scurvy in the gums, fastens the teeth, extracts, replaces, transplants, and regulates, cleans the teeth, and makes them white, substitutes artificial teeth in so neat a manner as not to be perceived from the natural, without drawing the stumps, or causing the least pain, they help mastication, give a youthful air to the countenance, render pronunciation more agreeable and distinct, in a word, as there is nothing more beautiful, and of such real service as a good set of teeth, both natural and artificial are worthy the

attention of every one—His charges are low, to give every person an opportunity of being bene-fitted by him Said GREENWOOD will with pleasure attend those ladies or gentlemen who cannot conveniently wait on him, upon their sending directions ”

In the *New York Journal & Daily Patriotic Register* for January 4, 1788, there again appeared a short notice

“J Greenwood
Surgeon Dentist
No 199, Water street, opposite the Coffee-house,
Performs all Operations incident to the
TEETH and GUMS,
Transplants Natural and Substitutes
Artificial Teeth
And Attends abroad upon sending Directions ”

On March 22, 1788, John Greenwood was married by Dr John Rogers to Elizabeth Weaver, and at that time made a visit to Boston to see his father Isaac⁴ The *New York City Directory* gives his address then as 56 William Street

About a month after our first President reached New York, the following appeared in the *New York Packet*, of May 21, 1789, inserted sideways so as to attract attention

“The
DENTIST
is removed
From No 19, to No 56,
William Street,
corner of
Beekman Street
New York, May 20, 1789 ”

The manner of this insertion was probably suggested by a notice of J Byles, upholsterer, which had appeared, the previous month, in the same paper, upside down

“Rosed Tooth Powder, for cleaning and preserving the Teeth & Gums, Sold by J Greenwood, Surgeon Dentist, No 56, William Street, corner of Beekman Street, and at No 199 Water Street, opposite the Coffee House, Small Box-Price 2 s 6 Large ditto, —4 s One Guinea given for Live Front Teeth New York, Aug 26, 1789 ” *New York Packet*, Aug 27, 1789

Washington, soon after becoming President, sought the services of John Greenwood and remained the latter's patient until his death in 1799 This relationship will be considered under Chapter XVI “George Washington, His Need for Medical and Dental Care” where it can be better treated From 1789 to 1791 Greenwood resided at No 56 William Street, corner of Beekman Street

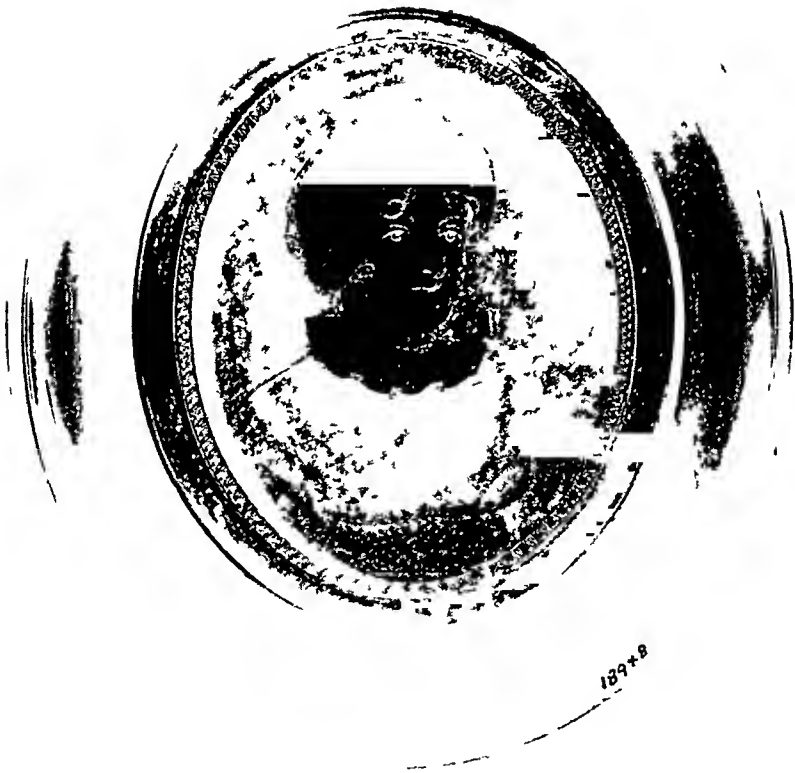



Fig 89 —Elizabeth (Weaver) Greenwood, wife of John and mother of Isaac John
From a portrait painted by Anson Dickinson (Reproduced by courtesy of the Misses
Greenwood and *The Frick Art Reference Library*) Now owned by *The New-York
Historical Society*

On August 2, 1790, in the *New York Daily Advertiser*, we find the following addressed to "Parents & Guardians" This notice contains the cut of crossed tooth brushes and dentifrice boxes, so long associated with his father's announcements Greenwood announced that special care would be given to children's teeth upon a yearly basis, an idea Flagg in 1797 likewise adopted "To give everyone (children) an opportunity to be benefited by him" "for four children or upwards, in one family, one guinea For one child per year, ten shillings, to be paid when the year is out from the time of entering" He likewise was interested in orthodontic prevention

Parents and Guardians.



AS the attent on that is necessary to be paid to children's teeth at the time of shedding and after, being at to great importance to their regularity, evenness, and future preservation, need no observations—Mr Greenwood is induced by the patronage of many families, to reduce his prices for taking the sole care of children's teeth by the year, to give every one an opportunity to be benefited by him

For four Children or upwards, in one family, per year one guinea For one child per year, ten shillings, to be paid when the year is out from the time of entering

There are many persons both young and old, whose teeth have lost their enamel by many different ways and turned yellow or black by that means Mr Greenwood informs those who wish to have that valuable part of their teeth renewed so that their teeth may return to their natural beauty and whiteness, that he can do it not causing the least pain—As he supposes there may be some persons who may think it impossible, those he will soon convince to the contrary, if they will be pleased to call at his house No 56, William Street, corner of Beekman Street

J GREENWOOD,
Surgeon Dentist


N. B Natural and Artificial teeth fixed, &c

Fig 90—John Greenwood's message to parents and guardians Here he reverses his father's cut of toothbrushes and pots of dentifrices as shown in Fig 51 *New York Daily Advertiser*, August 2, 1790

On October 15, 1790, the advertisement reproduced in Fig 91, appeared in the *Daily Advertiser*

On April 16, 1791, in the *New York Weekly Advertiser* we find that he also assumed the early title of the English "Surgeon Dentist and Operator for the Teeth"

SEA HORSE TEETH,



THE DENTIST has received in addition, a new set for the purpose of making artificial Teeth, which he intends for the use of his practice, the enamel of which is much thicker than the human teeth, so fitted to produce fire equal to a flint, and to keep the color, that when formed into the shape of human teeth, they cannot be perceived from them by the most strict observer. He makes whole sets of teeth, and fixes them in the mouth where there is no hurt to the gums, they are fixed with spangs in such a manner as to permit the teeth to act with every motion of the jaw, both in front and in the side, not causing the least pain or uneasiness, being useful in every point as other teeth, the springs are fixed in, so that rather to be seen not felt. Those who would wish to have them fixed, may be better informed by their humble servant the Dentist, whose practice is universally approved of, and who will exert his utmost ability to heal every deficiency, so as to render your teeth the most brilliant ornaments that can be exposed to view.

N B He cures the Scurvy, and ulcerated gums, and by your observance of his directions, the Scurvy will never return.

Transplants and cures natural Teeth. A generous price given for Teeth, either dead or alive, by

J GREENWOOD,
Surgeon Dentist,

Oct 4 No 56, William Street, corner of
Buckman Street

Fig 91 —By "Sea Horse" is meant walrus tusk *Daily Advertiser*, October 15, 1790

About July 1791, Mr Greenwood removed to No 5 Vesey Street, and in the *New York Weekly Museum* of June 2 to July 28, we read the following

"John Greenwood,
Surgeon Dentist
And Operator for the Teeth,
Has removed to No 5 Vesey Street side of
St Paul's Church

Whose abilities is universally approved by seven years successful practice in this city. He transplants, makes and cleans the teeth as usual. Price as follows

Transplants teeth, 3 Guineas each,
Grafts natural teeth, 3 dollars each,
Makes and fixes artificial teeth, from 8 to 20 s each,
Cleans the teeth from 8 to 20 s,

He has a peculiar method of fixing artificial teeth, which are not to be equalled by any other artificial teeth, as to beauty, firmness or durability

Tooth powder, 2/6 per box

NB Patent and all kinds of electrical machines, with medical and experimental apparatus for sale Enquire as above, or at Mr Clark Greenwood, mathematical instrument maker, No 199, Water Street, opposite the Coffee House”

On January 28, 1792, another advertisement succeeded the foregoing one, in the *New York Weekly Museum*

“Mr Greenwood,
Surgeon Dentist and Operator for the Teeth,

Gives his most respectful compliments to the Ladies and Gentlemen who please to honor him with their commands, and begs they will send word if convenient, previous to their calling on him, or wanting his assistance, as perhaps it may prevent a disappointment, except when immediate attention is necessary As Mr Greenwood is often engaged when called upon, he will with pleasure wait on those Ladies and Gentlemen who cannot conveniently call on him at his house, No 5 Vesey Street, opposite the N E Side of St Paul’s Church

NB His ability in the line of his profession is well known and approved by the first families in the United States, as well as Foreigners

Mr Greenwood’s Specific Dentifrice for cleaning the teeth prevents the scurvy, and preserving the gums, in using it recommends itself To be had at his house, at 2 s 6 d per box, or 24 s per dozen”

Another and more lengthy notice occurred in the *New York Weekly Museum* in June (9), 1792

“A New Invention,

To fix Artificial Teeth with springs, in such a manner that they may be put in and taken out by the person wearing them with ease, and in a moment They save the trouble of tying and cannot be perceived, as to their appearance or fastening from the natural teeth Made by

I Greenwood

Approved Surgeon Dentist,

No 5 Vesey Street, opposite the north-east side of St Paul’s Church, who informs his fellow-citizens and the public in general that he has ever had the approbation of those who have employed him, being the first families in the United States, as well as foreigners, he transplants teeth, cleans and draws teeth, cures the scurvy in the gums, makes and fixes artificial teeth in many different ways, some of which are entirely peculiar to himself, and done in so neat a manner, that he will defy any indifferent person to tell them from the natural ones—they are a great help in speaking and eating, and a great ornament, and if they cannot be fixed to answer the above purposes, Mr Greenwood will with candor, tell you

As many people are discouraged, and likewise prevents others from having anything done to preserve their teeth, or have artificial ones fixed in, owing to the unskilfulness of those they employed, and as there is many not well acquainted with the profession of a dentist, care should be taken to prevent bad consequences, by a little enquiry, as this profession is like many others curious in itself, and not to be acquired in a short time

Mr Greenwood informs those who wish to be further satisfied as to his abilities, that he has regularly acquired the art and skill of a dentist from his father, who is well known to be eminent in the line of that profession now and for thirty years past, and that in the course of eight years successful practice in this city, he has seen many performances in his line that were done in different parts of the globe, and none but what he could excel. His performances will convince the truth of the above assertions.

NB The extensiveness of his practice enables him to set his prices low, that every one may be benefited. Dentifrice for cleaning the teeth, 2/6 per box, and 24 s per dozen."

It is here that we find Greenwood beginning to use the spiral springs attached to both the upper and lower dentures.

From the *Weekly Museum* of November 17, 1792, we have

"I Greenwood
Surgeon Dentist

No 5 Vesey Street, opposite St Paul's Church yard Performs every operation incident to the teeth and gums—Possessing a perfect knowledge of Mr John Hunter's practice of the human teeth, (Surgeon extraordinary to the King,) with the general approbation of the first families of the United States as well as foreigners—He transplants and grafts natural teeth, those transplanted grow as firm in the jaw as the original teeth.

Mr Greenwood makes and fixes artificial teeth, of a peculiar kind, the enamel of which is as beautiful as that upon the human teeth, they neither change their colour nor can they be distinguished from the natural, they are fixed in without drawing the old stumps or giving the least pain, he cleans and restores the teeth to their original whiteness, and the breath to its natural sweetness, by removing the tartar which collects upon the teeth, separates them from the gums, and is the first cause of scurvy in the gums, an evil that ought to be immediately removed, and an object that should be particularly noticed and remedied by all classes of people.

Mr Greenwood returns his most grateful thanks to his friends, and such of the medical gentlemen, who have honored him with their recommendations, being still determined, to excel, and merit every favour.

NB His Specific Dentifrice powder for cleaning the teeth, 2/6 per box, 24s per dozen."

It was during that year that Horace Hayden, then an architect, and in New York on a visit, required professional aid. He visited John Greenwood and while under treatment, decided to become a dentist, and "procuring the few books which were then accessible" from Greenwood, and personal instruction as well, he made New York his headquarters until 1800. Hayden himself wrote ⁸

"To this end he enquired of the elder Greenwood of New York for books on the subject of dental theory and practice. That gentleman informed him of the work of John Hunter which he procured. Soon after he obtained possession of some few other works both in French and English. From that time he has seen the science assum-

ing more and more importance in the public eye, while men of learning, worth and genius have been added from year to year to the rank of its professors"

*General Washington died in the sixty eighth year
of his age his complaint was the (cynanche tonsillaris)
in the year 1799 December 14th & 22nd (cynanche trachealis)*

ADVERTISEMENT.

MOST of the Observations contained in the following Treatise were made by the Author before the Year 1755, and the Substance of them constantly demonstrated after that Period, in Dr. Hunter's Course of Anatomical Lectures The Figures were drawn by Mr Rymfdyk, under the Author's Direction, and engraved by Mess Strange, Grignion, Ryland, and others

*Dr John Greenwood Dentist.
To the Immortal Washington.
the Father of his Country who died
in 1799 December 14th & 22nd.
Dr Greenwood was likewise a fellow-
soldier in Arms with the Great Washington
in the very beginning of the American revolution
in 1775 at the Earliest age of 15 years. —
(Against the Enemies of his Country. &c.)
New York December 23rd 1799 John Greenwood*

Fig 92 —An annotated page from Greenwood's copy of John Hunter's *Natural History of the Human Teeth*, 1778 ed The copy used by Horace Hayden under Greenwood's preceptorship and now in the New York Academy of Medicine

About May, 1793, Mr Greenwood moved to No 10 Vesey Street, corner of Church Street, and during the next month advertised as follows in the same journal as above

“Ladies and Gentlemen

As there is nothing more useful, beautiful or a greater personal ornament than a good, clean, full set of teeth, every care should be taken to make or keep them so, for which purpose,

J Greenwood, Surgeon Dentist

No 10 Vesey Street, (a white house) directly opposite the fire-engine house, corner of St Paul's Church-yard, Performs every operation incident to the teeth and gums, makes and fixes teeth in the best manner, from a single tooth, to a complete whole set, Mr Greenwood's ability in the line of his profession, is well known and approved, having practiced in this city upwards of nine years with great success Mr Greenwood will engage to fix artificial teeth in so neat a manner, that if an indifferent person can distinguish them, after close inspection from the real teeth, he will charge nothing for them Teeth cleaned &c &c

NB Mr Greenwood's much used and esteemed, specific Dentifrice Powder, for cleaning the teeth, preventing tooth-ache, and curing the scurvy in the gums, being entirely free from any kind of acid, having the preference of pearl dentifrice by numbers who have used it Sold by appointment at No 238 Queen Street, corner of Kings-street, by John J Staples and son, and by the proprietor, price 2/6 per box, or 24s per dozen ”

In October, 1793, the following appeared —

“Ladies and Gentlemen

As there is nothing more useful or a greater personal ornament, than a clean full set of teeth, they deserve the attention of every one, for which purpose,

J Greenwood, Approved Surgeon Dentist,

Whose extensive practice and improvement, enables him to perform in the line of his profession, cheap, that every one may be benefited—He makes and fixes teeth from a single one to a complete whole set, and performs every necessary operation for the preservation of the teeth, cleanses and draws the teeth, cures the scurvy in the gums, if ever so bad, in so short a time as to astonish the patient, and in such a manner that it will not return

NB Those persons who wish to have information concerning their teeth, and the possibility of fixing artificial ones, the price, &c , will be informed with pleasure, by the operator, if either sent for or applied to, at his house No 10 Vesey Street, opposite St Paul's Church Yard, a white corner-house

Mr Greenwood's excellent specific dentifrice powder, for cleaning the teeth, preserving the gums and sweetening the breath, 2/6 for box, or 24s per dozen Advice concerning the teeth given gratis —A generous price for front teeth ”

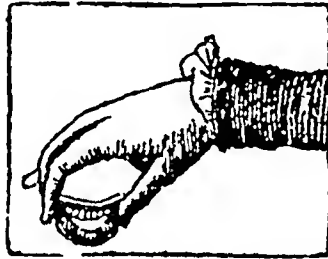


DENTIST TO GEORGE WASHINGTON

Fig 93 —From a portrait painted in 1793 by William Lovett (Reproduced by courtesy of the Misses Greenwood and *The Frick Art Reference Library*)

In 1794 Mr Greenwood resided at No 24 Vesey Street, in 1795 at No 3 Church Street, facing St Paul's Church-yard, but his name does not occur in the Directory of 1796. The next year he was living at No 14 (afterwards 20) Vesey Street, directly opposite St Paul's Church.

In 1794 Greenwood began to drop the "Surgeon Dentist" and "Operator for the Teeth" from his advertisements and from then on styled himself "Dr GREENWOOD, Approved Dentist" or "Dentist". This is according to *The Diary or Evening Register* of May 13, 1794, in an extremely interesting announcement. Here attention is being directed, by an admiring individual, to a set of new dentures, held in the graceful hand of some young lady, who believes "*A clean full set of Teeth, are much exposed and greatly admired*". We thus find here the beginning of such advertisements that later developed into the most disgraceful type of dental newspaper publicity.



*A Clean full set of TEETH, are much exposed
and greatly admired*

Dr GREENWOOD, APPROVED DENTIST,
Directly opposite the lower corner of St Paul's
Church yard, No 24, Vesey-Street.

MAKES and fixes teeth in a beautiful manner,
cleanses and restores the teeth to their origi-
nal whiteness, and the breath to its natural sweet-
ness. His Specific Dentifrice powder for preserv-
ing the teeth and gums, having the preference of
any European dentifrice whatever, by hundreds
who have tried its effects to be sold only by the
proprietor at his house, and by appointment at No
238, Queen Street, corner of King Street, by
John J. Staples and Son, price 2s 6d per box.

N B A generous price given for live or dead
front teeth

May 13 2 w 1 m

Fig 94.—The first use of a full denture cut in public print for dental publicity. *The Diary or Evening Register*, May 13, 1794.

In Freneau's *Time Piece* No 10, October 6, 1797, a notice calls attention to his "thirteen years successful practice in this city."

According to the *Weekly Museum* for November 26, 1796, he moved to 35 Warren Street.

“Dr GREENWOOD, *Approved Dentist*,
No 35, Warren-street,

Prepares and fixes real enameled Teeth, the best contrivance hit on to substitute the loss of natural ones They are fixed in without the least pain, and without taking out the old stumps As to ornament they equal the most brilliant which can be exposed to view, and helps pronounciation, mastication, &c &c

DR GREENWOOD has for sale cheap, a Farm near King's bridge, containing 30 Acres, it is well situated, and furnished with plenty of fruit, a good house and barn, &c and about 8 acres of woodland He is determined to sell a bargain to any person who wishes to purchase, if applied for within a month, as he cannot pay any attention to it, he will exchange it for property in this city, and pay the difference in value, if any November 26, 1796 ”

Greenwood was a firm believer in the future of New York City and he gradually acquired a large amount of real estate, some of which is still owned by his direct descendants

The *Sentimental and Literary Magazine*, (formerly the *New York Weekly Magazine*,) of July 5, 1797, had the following

“Lines written to a lady, who had a loose tooth extracted, and fastened in again by drilling a hole through it, and passing two ligatures, by which it was tied to the tooth on each side

Dear Madam, tell an anxious friend,
What terms you live on with your Tooth,
I hope your Jars are at an end,
But still I wish to know the truth

'Tis well you was alarmed in time,
And took the hint, and look'd about,
He and his neighbors could not chime,
They threaten'd shortly to fall out
He then show'd signs of Insurrection,
And some acquaintance had with Pain,
But now he's Drill'd—a just correction,
And to the Ranks reduc'd again

An action you commenc'd for trover,
And Greenwood bade contention cease,
He took him up, and bound him over,
And ty'd him down to keep the peace

Then, lest himself should gain no fame,
And you no profit from his labours,
As further sureties for the same,
Bound over both his next-door neighbours

Now let him learn to prize his lot,
And try to keep within his tether,
Let each old grievance be forgot,
And may you both long hold together ”

The *New York Commercial Advertiser* for October 14, 1797 contains the following

"DR GREENWOOD, SURGEON DENTIST

to the late President of the United States, &c no 14 Vesey-street, directly opposite the side of St Paul's church, whose abilities in the line of his profession he flatters himself, wants no puffing advertisement, and hopes that merit will, as it ever has done, hold the preference in his country—The operator fixes artificial teeth in every method practised by others, and in different ways peculiar to his own invention, and much approved of, being done without the least pain—Cleans and separates the teeth, &c

NB His prices are moderate, and advice given gratis His much esteemed specific Dentrifice Powder, is sold by appointment, at the stores of Messrs Hilwell and Bowdoin, 169 Pearl street, Mess Hook and Co 133 William street, and at the house of the operator, 14 Vesey street "

Again on March 3, and May 19th, 1798, there was inserted in the *New York Weekly Museum*

"Dr GREENWOOD, Surgeon Dentist,

No 14 Vesey Street, opposite St Paul's Church Yard, PERFORMS every operation incident to the Teeth and Gums, he transplants and grafts natural teeth, likewise makes and fixes artificial teeth without the least pain, some of which are of a peculiar kind, the enamel being so hard as to produce fire when struck with steel, and is as beautiful as that upon the human teeth

Dr Greenwood has a particular way of cleaning the teeth that does not give the least pain, and at the same time he gives the teeth a beautiful polish and whiteness, with directions, which, if followed, will keep them white, sound, and free from pain during life

PRICES AS FOLLOWS

Transplants teeth 3 guineas each, grafts natural teeth from 2 to 4 dollars each, artificial teeth from 1 dollar to 2½ each, cleanses and files the teeth from 1 to 3 dollars each person

NB As there is many a good set of teeth neglected and ruined for the want only of proper directions to preserve them, Dr Greenwood will for the benefit of those who chuse to apply, give his advice gratis, and at the same time point out the cause of their decay in so plain a manner that a child of six years of age may comprehend it, and by that means induce them to remove the millions of creatures which are every moment helping to destroy both the teeth and gums To convince those who may doubt, the operator will shew those Animalcules as represented by the famous George Adams in his *Micrographia Illustrata*, &c No 14 Vesey Street, opposite St Paul's Church Yard "

In 1798 he returned to No 3 Church Street, fronting St Paul's Church-yard, and towards the close of the next year removed to No 13 Park Row, four doors below the Theatre, where he continued to reside till 1805 "It is well to note that the dentist's chair in which George Washington sat was within a stone's throw of the Church pew which is on the itinerary of every sight seeker in New York "

"Greenwood, John (Dentist)

Artificial Teeth, Dr Greenwood, Dentist,

Practitioner only for the Teeth and Gums, performs his operations in a superior manner, as usual, at his house directly behind St Paul's Church yard, No 3, Church Street, where may be had artificial teeth, of all kinds, &c

NB His true genuine powders, both pearl and specific, may be had at the store of Messrs Stillwell & Deforest, No 169 Pearl Street, messrs Cook & Co No 133, William Street, and at No 3, Church street of the operator Cash given for any number of front human teeth, dead or alive

The Daily Advertiser (N Y), No 4193, July 17, 1798 "

On August 10th, in the *Commercial Advertiser* he wrote

"Dr Greenwood,
DENTIST,

No 3 Church-street, facing St Paul's Church-yard, WHOSE performances in the line of his profession, is well known and approved by the first families in the United States, as well as foreigners, and by fourteen years successful practice in this city He makes and files Teeth in a beautiful manner, such as may be depended on to stand their color Likewise, cleanses and separates the Teeth in a proper manner, so as to be the means of preserving them during life from pain or decay It is done by Dr Greenwood in so delicate a manner, as not to cause the least pain, and in such a manner, as to eradicate the scurvy in the gums, if his advice is followed

Artificial Teeth can be fixed by Dr Greenwood, when the attempt has failed by others, in whatever country

NB His multiplicity of applications enables him to perform at the lowest prices "

This same advertisement ran until August 26, 1799, when he added

"He charges nothing for advice for curing the teeth and gums and he relieves that excruciating pain of the tooth-ache for the poor, gratis, at his house "

Included in the Greenwood manuscript, there is a clipping from a newspaper of 1800

"We have before us a newspaper entitled '*The Courier and New York and Long Island Advertiser*,' published Thursday, May 1, 1800 It is No 44 of Vol 1 and has for its motto, *Columbia united shall to glory arise* It is smaller than the morning edition of the *Union*, on thick, lead-colored paper, four columns wide, and set mostly in large type with very thick or else double leads The advertisements are quite a study 'Dr Greenwood, dentist to the late General George Washington, Esq, informs the public that he continues to perform every operation incident to the teeth and gums,' and then follows a letter from General Washington commending Greenwood Another dentist, Dr McKinzev, states that he will go to houses to clean the teeth of ladies and gentlemen, 'and when the tooth will permit, perfectly cures the toothaches without the painful operation of drawing, in ten minutes' "

Within a month after the death of George Washington, Greenwood inserted in *The Spectator* (New York, January 31, 1800) the advertisement which later appeared on the last page of the 1800 *New York City Directory*

J. GREENWOOD,

DENTIST TO THE LATE PRESIDENT

GEORGE WASHINGTON,

Informs the Public, that he continues to perform every operation incident to the TEETH and GUMS, from the fixing-in of a single tooth to a complete set. The approbation which the late ILLUSTRIOUS WASHINGTON was pleased to bestow on him, he flatters himself, is a sufficient recommendation of his abilities as a Dentist.

Extract from General Washington's Letter.

"January 6, 1799.

"I shall always prefer your services to that of any other in the line of your present profession."

N.B. His prices are very moderate, as no person can exceed him in facility and quickness of performance.

For J. GREENWOOD may be consulted at his house, No. 13 PARK, which is the fourth door (towards St. Paul's Church) from the Theatre.

Fig. 95—Advertisement of John Greenwood in the *New York City Directory*, 1800

This house was next to David Longworth's *Shakespeare Gallery* at No. 11 Park (Row). Other dentists in the city at the time were Leonard Fisher, Fred Shanewolf, Richard C. Skinner, W. S. Turner, John Wooffendale, and James McKinzey, who was also a man mid-wife, while Shanewolf carried on the business of a hair-dresser.

The Weekly Museum of January 15, 1803, carried the following advertisement:

"Ladies and Gentlemen

When decorating yourselves with the advantages of dress, examine one of the greatest ornaments of the person, that is much exposed and admired,

A Clean, Full Set of Teeth,

Which may be acquired by applying to J. Greenwood, Approved Dentist, directly opposite the south end of the park, No. 13, fourth house from the theatre, who with sentiments of gratitude acknowledges the patronage he has hitherto been honored with in the line of his profession, during sixteen years successful practice in this city.

He makes and fixes Teeth in many different ways, some of which are done without drawing the old stumps, or causing the least pain, they help mastication, give a youthful air to the countenance, and are indispensable to render pronunciation more agreeable and distinct.

J Greenwood likewise prevents the Teeth from rotting, cleanses and restores them to their original whiteness Those persons who wish to have information concerning their Teeth and Gums, will be informed with pleasure by J Greenwood, gratis, whose candor may be depended on

NB His prices are very moderate, that every person who applies for assistance may be benefited "

The *Weekly Museum* for March 10, 1804, advertised

"Dentist to the late President George Washington

J Greenwood, continues to make and fix in Artificial Teeth, on an improved plan, they will hold their color equal to natural teeth, and are fixed in equally strong, and neat, they are also done much cheaper J Greenwood's performance as a Dentist none has excelled He gives advice concerning the teeth gratis, and his candor may be depended on

Those persons who may want assistance in the line of his profession, will find him constantly at his house, No 13, opposite the Park, the fourth house from the Theatre, towards St Paul's Church "

The *Magazine* of October 27, 1804 had this notice

"J Greenwood,

Dentist to the late President, G Washington

Informs the public that he continues to perform every operation incident to the Teeth & Gums, from the fixing of a single tooth to a complet set

J G Flatters himself that his long experience in the Art enables him to fix in Artificial teeth as firm and as natural in appearance as it is possible for them to be done, he has not been exceeded as yet in the line of his profession, and he could with propriety say more, but 'words are but wind' 'Experience is the Touch Stone'

NB JG may be consulted on all complaints of the Teeth and Gums, and advice Given, free from expense, at his house No 13 opposite the Park four doors from the Theatre, towards St Paul's Church "

Having purchased a house and farm at Newtown, LI, Greenwood moved there in June, 1805, but returned to the city the next year, and took up his residence at No 83 Beekman Street, between William and Nassau Streets, nearly opposite old Dr Seaman's

About the first of September, 1806, Greenwood set sail for France, principally on professional business, and remained in Paris during the winter months, returning in February of 1807 There he met the leading dentists of that time

The following affidavit was obtained by Greenwood before sailing ²

"State of New York On this twenty-fifth day of August, one thousand eight hundred and six, personally came and appeared before William L Rose, Notary Public for the State of New York, duly commissioned and sworn and residing in the City of New York, John Greenwood of the said City, Dentist, to me personally known, who being by me duly sworn, did depose and say, that the letter hereunto annexed and the appendage thereunto, are in the Hand

writing of George Washington, deceased, late President of the United States of America, and duly received from him, and that the said John Greenwood was Surgeon Dentist to the said George Washington and I the said Notary do moreover Certify, that the said John Greenwood, is an eminent Dentist in the said City, of long standing, and possesses an irreproachable character, and is worthy of full faith and credit

In Testimony Whereof I have hereunto set my Hand and Seal of office the day and in the year aforesaid

William L. Rose"



*J Greenwood Surgeon Dentist
to his Excellency George Washington
late Pres^t of the U. S. A.
1795 opposite the Park New York
on the Theatre*

Fig 96 —Professional card engraved by P. R. Maverick and used by John Greenwood upon his return from Europe in 1806. Painting by Roy in Paris showing Greenwood at the age of 45, and considered his best portrait. (From original in the New York Academy of Medicine.)

Attached to this certificate is the French Visa, dated November 26, 1806. To this was also attached Greenwood's inquiry of February 20, 1797, and Washington's answer of January 25, 1797. These will be found in their proper place in the chapter on Washington.

The *New York Weekly Museum* of 1807 had four of his advertisements, as follows

"J Greenwood,
Surgeon Dentist,

Informs his friends and the public in general, that he has returned from Paris, with great improvements in the line of his profession, and attends to his business as usual at No. 83 Beekman Street. March 7"

In May, he moved to No 14 (now 20) Vesey Street, where had resided some ten years before

“NATURAL & ARTIFICIAL TEETH

J Greenwood, Dentist to the late President,
George Washington,

Informs the public that he continues to perform every operation incident to the Teeth and Gums Except extracting them unless it is necessary to do it for the purpose of replacing others

J Greenwood fixes in both natural and artificial Teeth, from a single one to a complete set The approbation which the late illustrious Washington was pleased to bestow on him, he flatters himself, is a sufficient recommendation of his abilities as a Dentist ”

Extract from General Washington's letter, January 6, 1799

“I always prefer your services to that of any others in the line of your present profession ”

NB His prices are very moderate, and no person as yet has exceeded him in facility and neatness of performance

Any person who has the least inclination of being benefitted by having their teeth preserved, or to have them replaced by artificial ones, and are deterred from it by bad advice or temerity, will do well by calling on J Greenwood, and receive advice gratis, with every necessary explanation concerning the line of his profession, at his house, No 14 Vesey-Street, directly opposite the side of St Pauls church

May 16 ”

“NATURAL AND ARTIFICIAL TEETH

J Greenwood, Dentist to our late illustrious Washington, has lately returned from Paris, with a beautiful assortment of human teeth, other Materials, improvements, &c, in the line of his Profession, and continues to replace Teeth on improved plans, in the very best manner, at moderate prices, that every one who applies may be benefitted Every necessary explanation and information given free of expense, at his house, No 14, Vesey Street, opposite St Paul's Church-yard August 8 ”

“TEETH

Natural and Artificial Teeth replaced on improved plans, in the very best manner, at moderate prices, by J Greenwood, Artist in the Line Dental, No 14 Vesey Street, opposite St Paul's Church-yard
Nov 21, 1807 ”

This last advertisement appeared in the newspaper for six months He afterwards removed to No 15 Park Row, and there resided some three years, but in 1812 he was living at No 51 (now 53) Murray Street, third house below Dr Mason's Church In 1813 he moved back to No 13 Park Row, where he continued to reside until his death in 1819, though his office, after 1815, was at No 3 Ann Street

The New York Gazette, March 23, 1811, contained the following

“J Greenwood, No 15 Park, near the

Theatre, Preferred Dentist to our late illustrious Washington, Continues to replace both natural and artificial Teeth, in the neatest and

best manner, and on moderate terms for cash. He has lately visited the first Artists, as Dentists in Paris, for the purpose of further information in the line of his profession, and supplying himself with human teeth, of which he now has a great number, likewise every other material for making artificial teeth, for which he has spared no expense, for the purpose of performing operations as it ought to be done

NB Advice in all cases concerning the Teeth and Gums, may be had gratis, by applying as above"

Here follows a copy of an announcement in his own handwriting, prepared for the press probably in 1814

Enamel of the Teeth Renew'd.

John Greenwood, Artist in the line Dental to our late President George Washington. No 13 Park near the Theatre informs the public in General that on the course of thirty years extensive practice in this City and likewise in visiting the City of Paris for the purpose of Improvement in the line of his profession he has acquired the art of Renewing that beautiful white ^{and} glossy Enamel commonly called Enamel, and as there ^{are} many persons who have Good sound front Teeth, Except the Enamel being injured looking black or yellow and sometimes Green, and those others whose Teeth are partly decayed I Greenwood informs those whose Teeth are in that Situation that he can by his Requested Art Renew them on Essential benefit by preventing the further Destruction of their Teeth, and by following his advice their Teeth will remain Good during life.

Artificial Teeth of all descriptions ~~are~~ Replaced by him as Usual at different prices to Accommodate every one who may apply.

NB his price for Bleaching and renewing the polish or Enamel is five Dollars - - -
and for Bleaching the Teeth in the Common practice Three Dollars -

Fig 97—Copy of a newspaper advertisement in Greenwood's own handwriting, prepared for the press about 1814. From the unpublished manuscript entitled "Stray Notes on Dentistry in America"

Another Ms advertisement, about 1816, reads

"Real Enamel'd Teeth,

that will be warranted not to alter their Colour, no more than human teeth J Greenwood, No 13 Park, near the Theatre, Replaces real Enamel'd Teeth in the best manner possible for them to be done, he likewise replaces Artificial Teeth made of other materials generally used for that purpose

NB His prices are moderate, that every person who wishes may be benefitted by his performances"

Mr Greenwood's health failed during the summer of 1818, and he died November 16, 1819, aged 60 years, having suffered some months before from a stroke of apoplexy. He was succeeded in his practice by two of his sons, Isaac John and Clark Greenwood.

In the *New York Evening Post* for Wednesday, November 17, the following death notice appeared:

"Yesterday, in the 60 years of his age, John Greenwood of this city, dentist. He was an old and respectable inhabitant of this place, and in his death Society has lost an honest, virtuous and worthy member. His friends and relatives are respectfully requested to attend his funeral tomorrow afternoon, at half past 3 o'clock, from his late residence No. 13 Park, near the Theatre without further invitation."

According to *Wealth and Biography of the Wealthy Citizens of New York*, 1848 ed, John Greenwood left an estate of over \$150,000, which had increased to \$250,000 at his son's death. At the time of his decease in November, 1819, Dr John Greenwood's remains were laid in the family vault of the old Brick Church, corner of Beekman Street and Chatham (Park) Row. They were later moved to the vault in the Marble Cemetery, and are now at rest in Greenwood Cemetery.

It is to be regretted that we do not have a physical description of the man, John Greenwood. We are, however, more fortunate in having had recorded the appraisement of the man himself by several who apparently knew him intimately:

"He was a venerable man of great originality and shrewdness of mind on all subjects, a great reader and deep thinker, generous and chivalrous in disposition, of ready wit and full of the anecdote and lore of the past. In his profession his expert and adroit workmanship, bold ingenuity and resources under all difficulties, acquired him a reputation that left him without a competitor."

(*Wealth & Pedigree of the Citizens of New York*, 1842)

Horace Hayden contributed the following:

"Among those of native origin, we shall mention the name only of Mr. J. Greenwood. In early life, it seems he, like many of the sons of New England, evinced an energy of character, which encouraged and sustained him through the vicissitudes of the remaining part of his life. Besides this essential quality, he was endowed with no ordinary share of ingenuity and mechanical tact. We believe he stood alone in his profession, enjoying almost the exclusive patronage and confidence, not only of the inhabitants of that city, but of the *Father of his country*, George Washington, himself, and for whom he performed an operation, and executed an entire dental apparatus, which for ingenuity and mechanical skill, would have done credit to the most experienced of the profession in any country, and the more so, as we have reason to believe that it was the first attempt of the kind that had ever been made in this country, and, moreover, that he had never *seen* an example of the kind by a drawing or other-

wise, to serve him as a model or guide" Hayden continues "This from the novelty of the case, and from the very prominent standing and reputation of the person for whom it was performed, was sufficient to insure Mr G the confidence of the public, to establish his character and reputation as a dentist "

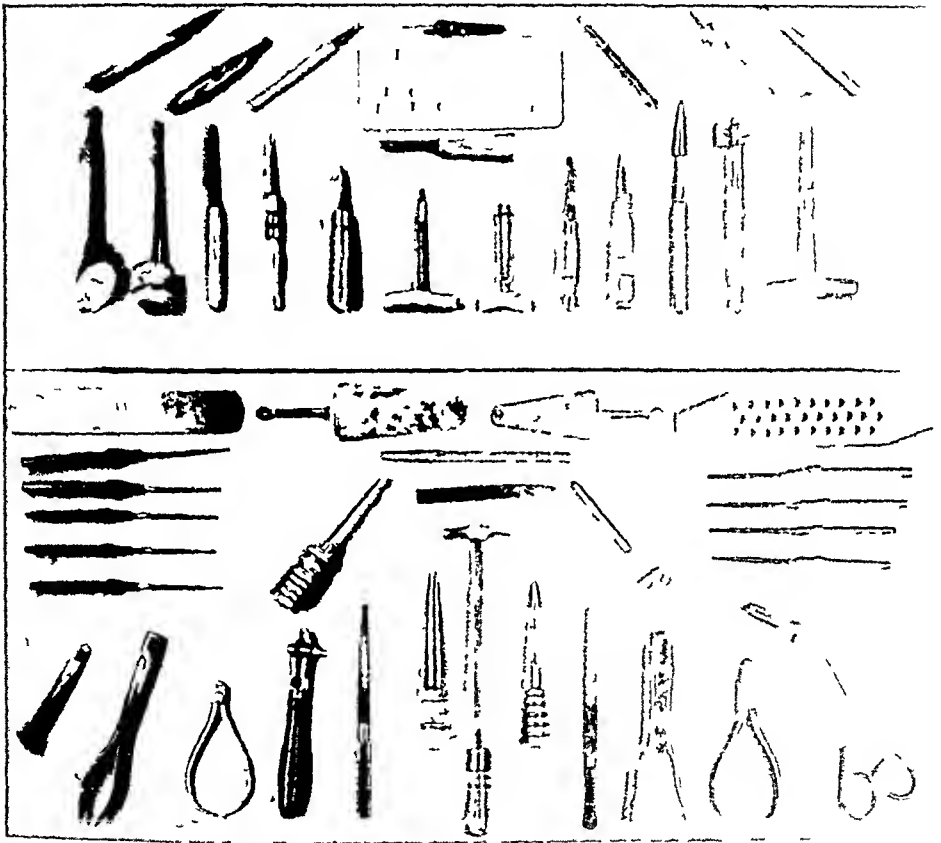


Fig 98—Top Operating dental instruments made and used by John and Isaac John Greenwood Bottom For laboratory use, in carving ivory dentures, etc (Courtesy of the New York Academy of Medicine)

When in 1847 Isaac John Greenwood presented to the *Baltimore College of Dental Surgery* a copy of the painting of his father, John, by William Lovett (Fig 93), Dean W R Handy acknowledged the gift by writing the following letter "The Faculty values the Presentation most highly not only in consequence of the distinguished individual himself but most especially as being the Father of American Dentistry as well as the Dentist to the Illustrious Father of our glorious Republic" The Dean of the *Baltimore College of Dental Surgery* must have had some good and sufficient reason for bestowing upon Greenwood the title of "*Father of American Dentistry*," "not only in consequence of the

distinguished individual himself but most especially as being the Father of American Dentistry" and not entirely for his services to Washington

In his own memoirs, the following words appear ¹⁵

"Whoever reads these lines which I have hastily written, will I hope profit by them and learn contentment. Seek not to deprive another of this great blessing, but always be ready rather to suffer yourself than to give offense, for, though I well know this may seem an impossibility, yet we may in some degree mitigate our own faults. That we have faults who will deny—'tis in our nature, and he that is without them, let him heave the first stone."

John Greenwood was familiar with such dental literature as existed at his time, and was well informed in the surgical department of his profession. An old copy of John Hunter, *Natural History of the Teeth* 1778, with marginal notes by Greenwood and well-thumbed leaves, formerly in the possession of his son, Isaac John Greenwood, and grandson, Dr Isaac J Greenwood, and presented to the New York Academy of Medicine by the latter's daughters, Eliza and Mary Greenwood, bears ample testimony to the careful attention with which John perused its pages ¹⁰

The following are the notations made by John Greenwood, with the spelling as we find it in the marginal notes. The remarks toward the end clearly indicate how observant some of our early practitioners proved themselves to be. On the page "Advertisement," following the title page, Greenwood wrote the following, ten days after Washington's death. (See Fig 92)

"General Washington died in the sixty-eighth year of his age, his complaint was the (cynanche tonsillaris) (cynanche trachealis) in the year 1799 December 14"

Below the "Advertisement,"

"Dr John Greenwood, Dentist To the Immortal Washington, the Father of his Country who died in 1799—December 14th Dr Greenwood was likewise a fellow soldier in Arms with the Great Washington in the Very beginning of the American revolution in 1775 at the Early age of 15 years—

Against the Enemye of his Country

John Greenwood

New York, Dec 23,
1799 "

Greenwood's observations as found in his copy of Hunter's *Natural History of the Teeth*

Page 80—Of the chapter on the Causes of Pain in Dentition, Greenwood notes "These observations are good"

Page 86—Of the chapter on The Manner in which the Tooth is formed he notes "Correct observation"

Page 98—Of the chapters on the Manner and Reason for Shedding the teeth, he notes "Correct Truth, and cannot be contraverted, they are simple nature"

Page 105—"Good Observations"

Page 110—On the Continual Growth of the Teeth, he says "This observation appears to be a fact and I believe it"

Page 121—On the Diseases of the Teeth his notes are as follows "This Dr Hunter writes about a thing he acknowledges he knows nothing about, which certainly he does not, for he says that whatever the disorder is that affects the teeth that it is generally attended with pain, then he goes on and says that he believes it is occasioned by the nerve being exposed any fool knows that, and then he says that it is not Easy to say by what Means the nerve becomes Exposed. It certainly shows that he was entirely Ignorant of the Cause of destruction of the Teeth, as he had no opportunity by practice to investigate into it, and only wrote his own opinion on the subject. As to his Abilities in the Construction of the Anatomy of other parts of the human frame I presume he was a complete Master for he practised it with natural Ability, pleasure and profound attention, acknowledged by all learned in the Profession. Facts are stubborn things. I shall now point out the real cause of the destruction of the human teeth, as there is two causes onely which destroy them. Neither of them is a first or second Cause, as it intirely depends on the Constitution of the person altogether, some people's Teeth are what is called *rotted* away in the mouth, and others will have their teeth come out round and whole occasioned by the Gums being destroyed—

I shall now inform you why the teeth rot in some people's heads and not in others. The reason why they rot Generally is, it is owing to a strong Acid stomach, that is those persons who have a Quick or strong digestion have invariably Bad Teeth. As the power of digestion is so powerful that it Exales into the mouth and completely digests, rots and destroys their teeth. It will not onely do that, but you will finde it will digest your silver and every other Mettal but platina or Gold, for you will finde what I say is a fact, by Experience Twenty-five years practice. The other cause of the destruction of the teeth is an accumulation of Earth, called Tartar, it is nothing more than the sediment of the breath which sticks to the teeth and forms a hard substance Exactly like that which adheres to the bottom of a Teakettle,—it will insinuate itself between the Gums and the teeth and separate them by degrees, so as to loose the teeth and in time causes them to drop out, if it is not removed in time.

Page 122—You here also finde that Dr Hunter acknowledges he does not know the cause of the destruction of the teeth. I have fully ascertained by practice and incontrovertible facts that the decay or destruction of the teeth is occasioned by the acidity of the stomach, or what is called a quick or strong digestive power and it cannot be corrected or stopped but by one means or method, no other will do it. That is this. Brush your gums frequently and your teeth also with a weak alkaly which is common chalk or Spanish Whiteen—it will certainly preserve them."

the ...
of the ...
now ...
 CHAP. I.
From 1732 ...
 DISEASES of the TEETH, &
on any ...
 CONSEQUENCES OF THEM

S E C T I

The Decay of the Teeth, arising from Rottenness

THE most common disease to which the Teeth are exposed, is such a decay as would appear to deserve the name of mortification. But there is something more, for the simple death of the part would produce but little effect, as we find that Teeth are not subject to putrefaction after death, and therefore I am apt to suspect, that, during life, there is some operation going

in ...
of a Dentist by facts. I know the teeth are
destroyed by the gastric juice or acid arising
from the stomach, and the gums is destroyed by
the accumulation of matter what is called Tartar
J. Greenwood

Fig 99—Notes and observations made by John Greenwood, as they appeared in his copy of Hunter's *Natural History of the Human Teeth*

Page 126—On Implanting the Teeth, Dr Greenwood says — “This is a miserable practice and the recommendation of it shows plainly that the Doctor knew nothing about the nature of the Human Teeth, if he did he never would have recommended it, As I presume this book was wrote in a Great measure to get Money, notwithstanding there is something very Good in it, but it requires a practitioner of capability to find them out I have found a great deal of fault in Dr Hunter’s opinion and advice in this Book thinking it was his production, But it may be very possible he never wrote it, and I cannot believe he did ”

In Part II of John Hunter’s *Natural History of the Human Teeth*, which is a “*Practical Treatise on the Diseases of the Teeth*,” Greenwood wrote

Page 1—“It is surprising to find persons giving a description of what they know nothing about, as Hunter has in the succeeding Chapter on Teeth The true cause of the decay or destruction of the teeth now fully ascertained by a person who has neither the advantage of a liberal education, nor the least instruction from any person living, Except his own practical observation for 24 years—from 1784, an American born and followed the seas in his youth—he can not only stop the decay of teeth, but even cause any teeth to decay either in or out of the head, or any Animal’s teeth whatever, and stop the progress as quick ” (See illustration, Fig 99)

Apparently the following year he added

“New York 1809 being 25 years in the practice of a Dentist by facts I know the teeth are destroyed by the Gastric juice or acid arising from the stomach, and the Gums is destroyed by the accumulation of earth or what is called Tartar J Greenwood ”

Page 8—TEETH The disease as it is called by Dr Hunter Not Accounted For by him or any other person in the manner I shall explain it You will finde in reading Hunter’s opinion that the Teeth are destroyed by disere in the teeth I have found out by upwards to twenty years constant practice that Dr Hunter’s opinion and observations are intirely wrong In the first place the Teeth are destroyed and attacked first on the External part of the Tooth which led me to search out the cause Why the Teeth should be thus destroyed It was several years before I could satisfy myself concerning it, with all my diligence and search, for I saw no good reason given by any Author that wrote on the destruction of the teeth, —that is that the teeth are destroyed owing to a disorder in the teeth etc

Page 9—I found out that the teeth are destroyed by two causes, or agents, which are these —the first prime cause is Acid, called Gastric juice, which arises more or less according to different constitutions, and digests, or more properly speaking corrodes the teeth, attacking them externally, next cause is what is called Tartar, it is nothing more than the earthly part of the breath, which collects round the neck of the teeth and insinuates itself between the gums and the teeth when it is permitted to accumulate And by that means worrying, fretting and cutting the small fibers and blood vessels in such a manner as to set the gums in an inflammation (which is erroneously called the

scurvy), and by that means the teeth in time become loose by losing their nourishment and support, and finally drop out sound and whole, which you will find by removing the tartar from them with an instrument. As I have pointed out to you the cause of the destruction of the teeth, I shall now point out the remedy to prevent it. The first cause of the teeth being destroyed by having holes in them which is improperly called rotten teeth, being occasioned from the power of acid which is allowed to remain round and about the teeth, can easily be removed and prevented from attacking them by a weak alkali which neutralizes it. Common Chalk, Spanish, is the best. Pound it fine and brush the teeth and gums with it every morning. You may mix with it Gum Myrrh, but it is as good by itself. By brushing the teeth and gums with spanish chalk every morning you will find in a short time that both the teeth and gums will become clean, healthy and sound. The more the gums is made to bleed the quicker they will heal and become hard. But you must observe that if the teeth are surrounded by an earthly substance which is called tartar, it must first be removed by a person skillful in the Art dental.

Page 10—There is a foolish opinion among many ignorant people that frequently brushing the teeth and gums hurts them or wears them out, which occasions many others to neglect their teeth, and by that means they have the mortification to find when too late that their teeth are become destroyed beyond remedy for the want of that very attention they were advised not to take. Take advice which is good, keep your teeth and gums clean, likewise your whole person. Cleanliness is a sure thing to PROMOTE HEALTH, my Friends.

I have observed that cleanliness is a sure thing to preserve health in relating to you the cause of the destruction of teeth (I shall further inform you of the necessity to keep them always clean by informing you that if the teeth and gums are permitted to be in a foul dirty condition they are subject to create thousands of creatures called Annamalcuſa. They will be found if you will take the trouble to examine by the assistance of a microscope. Multitudes of those creatures of four different kinds, between all your teeth, and buried in between the gums and teeth. The way for you to see them is to take a pin or needle, put it between your teeth and bring out the white or other matter that is there and apply it to the microscope and you will quick see them tumbling over one another like maggots on rotten meat. These creatures cannot live nor create except in filth and rottenness.

Page 11—You will absolutely find that all the causes that have any tendency to destroy the teeth and gums in any shape or manner whatever, or giving pain, inflammation, etc etc in the mouth are occasioned by carelessness in not properly keeping them clean, but you will find a difficulty in convincing many ignorant people of it for they are so self-conceited that they think they cannot omit or do anything wrong, therefore if they but partially clean their mouth they will insist to you that they have always cleaned their mouths with care, etc.

Whenever you perform any operation on the teeth mind and do it effectually, and at the same time observe to the patient that all you can do is to put their teeth in a state of preservation, for them to take care of them, and be sure and give them the best advice how to

do it, if they do not follow your advice it will be their fault and they will naturally find it out and come to you again, if they follow your advice and keep their teeth in good order then they will certainly recommend others to be benefitted by you. On the contrary if you do not give them good advice,—you lose your name and—practice

Page 103—Dr. Greenwood's note on Replanted Teeth

"This replacing drawn teeth may do in some cases with people who do not mind pain but I should never recommend it for this reason, never extract a tooth that you think there is a possibility of saving it, although it gives pain for the present, as it is not every tooth that gives pain must be extracted, no more than every limb that gives pain should be cut off. Be therefore careful and search out the cause why the tooth gives pain and you will very quick satisfy yourself concerning the propriety of depriving the person of their tooth, as it is a Great loss. Even Moses thought so for he made it A Great punishment for one person to deprive another of one tooth, as he said 'An Eye for an eye and A Tooth for A Tooth'

THEREFORE BE CAREFUL IN PRACTICE

and likewise be certain to a mathematical demonstration that what you do is right and mind never to be led away by books of any description but invariably stick to Truth and facts which you will find are always easy and simple"

The test of time is the best proof of the value of a man's contribution to society, and Greenwood's observations, as just recorded, do not suffer with the passing of the years. His observations were made between the time of the published works of John Hunter and Joseph Fox. Upon reading them one cannot help but feel that when Greenwood agrees with the former he coincides, but when he disagrees, he most decidedly takes exception. The difference in opinion, one finds, is not a lack of confidence in Hunter but a feeling that Greenwood had a greater confidence in his own observations and thinking, based upon his own practical experiences.

Hunter felt that decay of the teeth "appears to be chiefly in the tooth itself, and but little to depend on external causes." Greenwood, on the other hand, on p. 8, Part II, observed that "teeth are destroyed and attacked first on the external part of the tooth." Greenwood then presents two theories as to why teeth decay. "Neither of them is a first or second cause, as it entirely depends on the constitution of the person altogether." The theory that he advances was one for his own use, and considering the unorganized state of dentistry in his day, he could have done very little to promulgate them, even if he had wished to. In introducing the question of acid, he presented a chemical theory. The second cause "the effect of tartar," must be read with his advertisement dated March 3, 1798. "I will point out the cause of their decay and by that means induce them to remove the millions of creatures which are every moment helping to destroy the teeth and the gums." Greenwood, we thus learn, recognized the injury to the teeth by micro-organisms

and mentions the use of the microscope to study the breaking down of tooth substance as well as the injury to the gums. Here we have Miller's concept nearly a hundred years before its publication. Certainly this demonstrates a highly scientific spirit, especially for those days. Being able to advance two new theories that today still separate many of our present-day research investigators, we believe entitles John Greenwood to a place in the *Hall of Fame of Dentistry*. That he was more than dentist to George Washington, is likewise demonstrated.

The familiar phrase *a clean tooth never decays* had its origin in the advertisements and observation by Greenwood, for he wrote "That cleanliness is a sure thing to preserve health, that bacteria cannot live nor create except in filth and rottenness" and that only by keeping the teeth clean would their destruction be prevented. What better advice could one give today than the following thought as he expressed it, and which will bear repetition:

"Whenever you perform any operation on the teeth mind and do it effectually, and at the same time observe to the patient that all you can do is to put their teeth in a state of preservation, for them to take care of them, and be sure and give them the best advice how to do it, if they do not follow your advice it will be their fault and they will naturally find it out and come to you again, if they follow your advice and keep their teeth in good order then they will certainly recommend others to be benefitted by you. On the contrary if you do not give them good advice,—you lose your name and—practice."

During his practice, in the treatment of a diseased maxillary sinus, Greenwood perforated this cavity from the socket of an upper molar tooth, and effected a cure of the disease. The case report and description of the treatment of a diseased maxillary sinus, given by John Greenwood's son in the *American Journal of Dental Science* Vol. II, December 1841, pp. 178 and 179, is of extreme interest.

"I then placed some raw cotton, saturated as above into the cavity, to remain there, and sent him home, telling him to return the next morning. When he came, I again cleaned out the antrum with dry raw cotton and the same mixture as before, although not so strong as that used the time previous, and required him to come in *three* days, as he now felt much better. He did so, when I used a mixture of the acetate of plumbi and aqua rosae, and treated the cavity the same as before, telling him to keep the body open by gentle aperients. He had been enabled to sleep and felt much better. There was a continual discharge from the sinus. When he called in a week after, he was much better, in good spirits, and enabled to use his arm somewhat, but not satisfactorily, and could attend to his trade, but not much. I advised him to continue the aperients and syringe the cavity frequently with *suds* made from tepid soft water and old Castile soap, and to bathe the external surface of the temple and cheek with tepid water and vinegar and ludanum in equal portions, which he promised to do, and as I heard no more of him concluded the cure was effected."

"In the instance of a case treated by my father, John Greenwood, nothing was prescribed but tepid Castile soap suds, to be repeatedly injected into the intum by means of a syringe, until cured, which was effected in a short time after having applied the remedy, and the gentleman is now living to attest the perfect propriety of the prescription, in the complete restoration of the healthiness of the parts diseased"

There are many other interesting observations recorded by Isaac John Greenwood which relate to the early practice of dentistry,^{13 14} and particularly to his father, John. These he reported in a letter dated November 14, 1860, to Dr J Taft, which was published in the *Dental Register* Vol XV p 30-37 ¹¹

"My grandfather, Isaac Greenwood, of Boston, Massachusetts, practiced the making of artificial teeth there many years previous to the Revolution, but from what I can gain as to information, he never used plaster of Paris to make models of, for either plate or bone work, he made his teeth out of the sea-horse tooth (hippopotamus), and used merely a bees-wax mould, as did my father, John Greenwood, who practiced in New York from 1790 to 1820

"My brother, Mr Clarke Greenwood, deceased, and myself did not use plaster of Paris until about 1820, and I think it was through my own suggestion. We hardened them by dipping the plaster moulds into boiled linseed oil, and let them dry. Before that time white and yellow bees wax was much in use for plate and bone work, even for half and whole sets of teeth. I never had a set returned to me on account of the fit. And I think I was the first in New York who set natural human teeth upon bone gums and colored the gums to life, after those made for General George Washington by my father in 1799

"The first mineral teeth seen by me were brought to the country by Colonel Aaron Burr, whose dentist my father was, and presented to him by the Colonel"

These apparently were some of those originally made by Fonzi, the first successful porcelain baked teeth of which we have five in our collection



Fig 100 —Some of the original porcelain (mineral) teeth made by Fonzi about 1806 (Author's collection)

"The first I ever saw in New York and made in the United States, were made after the same plan, but thicker. In the first years of my practice metallic pivots to teeth were used, and screwed into the material of bone or human teeth (or sea-horse, sheep or oxen),

and cotton was wrapped round the metal pivots to keep them in the sockets of the roots, which, when decomposed, would give an offensive odor, and with me it was a great point to endeavor to find a remedy to prevent these bad effects, and to keep the teeth sweet and clean as possible, which I soon was enabled to remedy”

“My father was the first to use the ‘foot-drill’ and he made it himself from an old spinning-wheel of my grandmother’s, and, since his death, I myself used it, the same one, altogether in my practice for twenty years, and have it yet I never had seen one before, and I know the hand bow-drill was always used before I never used the hand bow-drill to perforate the roots of teeth for pivots, etc., nor in any way, but a drill instrument with a spear-shaped point, gauged for the depth of the pivot, to drill the roots to receive the wooden or metallic pivot But to make the hole to receive the pivot in the tooth I always used the foot-drill And in drilling pieces of bone or ivory, I could, with the drill made of the finest needles, meet the drill-hole an inch apart”

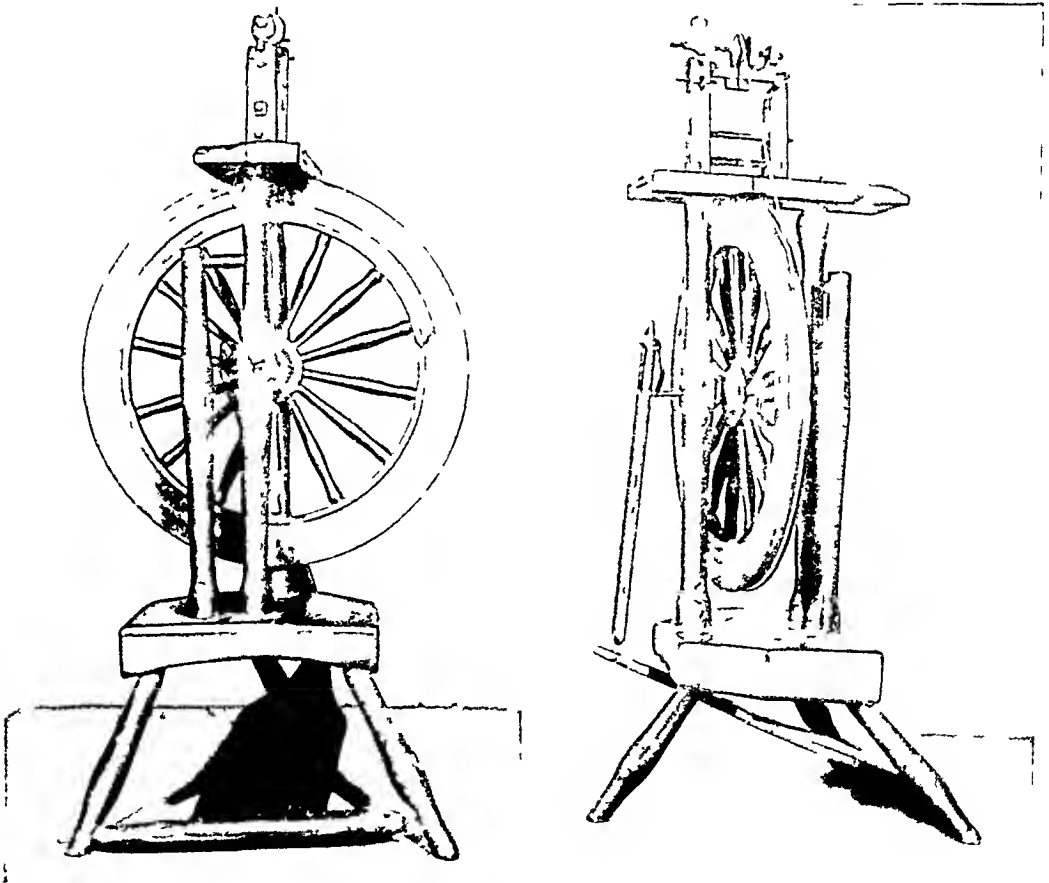


Fig 101 —The first dental foot engine made in 1790 from a spinning wheel and used by John, and later by his son, Isaac John Greenwood Originally it belonged to the grandmother of Elizabeth Weaver, wife of John Greenwood, and is over two hundred years old (Presented to the New York Academy of Medicine by the Misses Greenwood, July 3, 1934)

This "foot-drill," altered about 1790, was recently presented to the *New York Academy of Medicine*, a photograph of which is shown here. This device, the first dental foot engine, antedates Morrison's and Black's by some eighty years." (Fig 101)

John Greenwood was succeeded by two of his sons, Isaac John and Clark.

John Greenwood, as we have stated in the life of Gardette, was perhaps the first in this country to swage a gold plate, to serve as a base for artificial teeth and "that without having seen a description of the process, or without knowing that it had ever been done at that time," 1786. He was in the habit of constructing sets of artificial teeth with stained gums, and during his professional career, he frequently corresponded with that eminent French dentist, C. F. Delabarre (1777-1862), from whom he procured a large quantity of human teeth, which he used in his practice. As early as 1789, John Greenwood became the dentist of General Washington and in that year made an upper and lower set for him, with artificial gums, secured in the mouth with springs. The various sets that Greenwood made will be considered under the chapter relating to Washington.



Fig 102 —Operative dental instruments made and used by John Greenwood. The pattern is very similar to some used at the present day. (Author's collection)

In the *Transactions of the Ninth International Medical Congress*, 1887 (Vol V p 701) E. Parmly Brown (1844-1916), mentioned that he obtained at the auction of the effects of Isaac John Greenwood, after the latter's death in 1865, ivory dentures and a large number of human and calves' teeth, many of both kinds being reshaped by grinding, for attachment to base-plates, with holes in their root ends for screws. Others had one or two horizontal holes through their crowns to receive threads or wires for ligating them to proximal natural teeth. The following photographs are those still in the possession of Brown's son, L. Parmly Brown (1868-1936), who was kind enough to send them to us with a description



Fig 103 —Three ivory lower dentures, made by John Greenwood for the same mouth in different periods of an unknown patient's life, with human anterior teeth, attached by vertical screws. Holes are in the complete denture for attachment of spiral springs to connect this lower with an upper denture, and this lower is the only one of the three that shows evidence of much use in the mouth. In all three dentures, the corroded gold alloy screws appear to have been among those originally employed while the screws of bright (silver) alloy seem to have been inserted after the teeth had loosened on the original screws, probably long after the denture had been in use. (In the collection of the late L. Parmly Brown, Peckskill, N. Y.)

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CHAPTER XIII

WILLIAM PITT, CLARK, ISAAC JOHN AND CLARK GREENWOOD. GEORGE HENRY GAY

WILLIAM PITT GREENWOOD (1766-1851)

WILLIAM PITT GREENWOOD, born in the town of Boston, Saturday, May 10, 1766, was the youngest of the five sons of Isaac and Mary (Paus) Greenwood. His early education was probably no better than that afforded his older brothers at the North Writing School under old Master John Tileston, but he had the advantage of more years of study as his youth precluded his escaping from his studies in an outburst of military ardor at the commencement of the Revolutionary War. His father, in a description in the local papers of the Boston Massacre, called himself an "ivory-turner"¹. This business naturally embraced dentistry (then purely a mechanical occupation) and his son William became proficient in the same trade, as he was alluded to, when twenty-one years of age, as an "ivory-turner" in the will of his grand-aunt, the widow of Colonel Robert Hale of Beverly².

At the invitation of his brother John, of New York, who had already established an excellent dental practice, he was called in 1788 to assist him there for a short time,³ whence he proceeded to Savannah. Disappointed at the prospect of little success in the Southern States, he returned north about 1790 and commenced his practice of dentistry at Salem, Mass.,⁴ where his brother Isaac, Jr., had also begun his practice in 1781. He remained there but one year, for on August 21, 1791, he was in Boston.

"William P. Greenwood, Dentist,

Takes the liberty to inform the Public that he has taken a room pleasantly situated in Cambridge Street, West Boston, opposite Mr Samuel Gore's dwelling house, where every attention in his power as an Artist, will be paid to those who may be pleased to honor him with their commands. He flatters himself to perform every operation that comes within the province of a Dentist (such as cleaning the Teeth, curing the disorders incident to the Gums, extracting, transplanting, plumbing, replacing, and regulating the Teeth, substituting

artificial Teeth, Gums &c) with as much facility, accuracy and satisfaction to the patient as can be done by any of the profession in America Brushes and Dentrifices proper for the Teeth and Gums to be had at the same place, where attendance is given from nine o'clock in the morning until one, and from three until six in the afternoon "

Columbian Centinel, August 21, 1791

Just how long he remained in Boston is uncertain, for in May of 1793 he was practicing in Baltimore, according to the advertisement in the Baltimore paper (Fig 104)

T E E T H AND G U M S.
WILLIAM P GREENWOOD,
 SURGEON-DENTIST, from BOSTON,
At Mrs YOUNG'S, in MARKET-STREET, between
CALVEET and SOUTH STREET,
Performs every necessary Operation
 on the Teeth and Gums, fixes in Teeth, either natural or artificial, with Facility and Accuracy, in many different Ways, some of which are peculiar to himself, they hold their Colour, and resist the scrutinizing Eye in Attempts to discover the Deceit, they are really comfortable to the Wearer, give a juvenile Air to the Countenance, render Pronunciation agreeable and distinct, help Mastication, and prevent the Teeth of the opposite Jaw from growing prominent, and, without Doubt, are the most brilliant Ornaments that can be exposed to View
 Mr GREENWOOD will leave this Town in ten or twelve Days
 —Those Ladies and Gentlemen, therefore, who think their Teeth worth Attention, and wish him to perform any Operation within the Line of a Surgeon Dentist, will please to command him, within the Time above mentioned.
Baltimore, May 27 1793

Fig 104

The following month found him in Philadelphia His Philadelphia advertisements are extremely interesting, as they called attention to the fact that he was "a pupil and son to the celebrated Dentist of that name in Boston," but failed to mention that he was a brother of John, then dentist to George Washington One might conclude that their relationship was not very cordial, but this is not correct, for John himself presented to his brother one of Washington's letters which he valued very highly

"GREENWOOD, William P (surgeon dentist)

Wm P Greenwood, Surgeon-Dentist, Pupil and Son to the celebrated Dentist of that name at Boston

Respectfully informs the Ladies and Gentlemen of this city, that he will with pleasure wait on those who may please to honor him with their commands, to perform any operation in the Art Dental And Greenwood fixes in natural and artificial teeth in many different ways, some of which are peculiar to himself, with the natural enamel

that he will warrant to hold their colour, and vie in beauty with any teeth whatever and if not done to the complete satisfaction of the patient he requires no pay

Mr Greenwood, may be consulted with relative to his profession at No 9, north Eighth Street, where proper and punctual attention will be paid to all orders directed to him "

General Advertiser (Phila) no 851, June 20, 1793

"GREENWOOD, William P (dentist)

Wm P Greenwood, Dentist, And Operator for the teeth and Gums, No 158, Market-street,

Respectfully informs the Ladies and Gentlemen of this City, and its vicinity, that he sets in natural and artificial teeth, from a single tooth, to a whole set, without extracting the stumps, or pain to the patient, cleans and beautifies the teeth without the least injury to the enamel, eradicates the diseases incident to the gums, extracts, transplants, plumbs, and regulates the teeth, &c

NB Mr Greenwood acquired the knowledge and mystery of his art, under the regular tuition of his father (at Boston, whose abilities in the line of his profession, has been universally approved of for thirty years past)—therefore with confidence flatters himself to perform any operation within the province of a Dentist, with as much facility, accuracy, and satisfaction to the patient, as can be done by any of the profession in Europe or America

Orders directed as above, will be properly and punctually attended to, and the utmost skill of the artist shall be exerted, to merit approbation "

Federal Gazette (Phila) no 1468, June 21, 1793

In March, 1795, William Pitt was once more practicing in Boston

"March 1795 Enameled Teeth W P GREENWOOD, Dentist and Operator for the Teeth & Gums, at his Room, in the Building formerly the Mass Bank, near the Mall, particularly (the improvement) in the manner of substituting Artificial Teeth, that can be made to vie in beauty with the most brilliant natural ones, and in many cases fixed in firm as to be of real use in mastication, and done without extracting old stumps, or giving the least pain in the operation," and thanks the public "for the many & daily proofs of patronage he receives "

Index Chronicle, March 12, 1795

Here we find him beginning to use the "Real Enameled Teeth" the formula for which he no doubt obtained during his visit in Philadelphia from Le Breton Further advertisements are to be found in the *Federal Orrery* (Boston) running from June 18 to July 27, and again for six weeks starting with the issue of August 31 Likewise in *The Independent Chronicle and The Universal Advertiser* for October 8

On July 23, 1796, William P Greenwood was married to Mary, daughter of Captain John and Mary (Walley) Langdon of Boston, who survived him but a few years, she died after a short illness on June 5, 1855, and was interred at Mount Auburn She was the mother of ten children

In 1797 the following advertisement appeared

"William P Greenwood,
Approved Dentist,
And Operator for The Teeth and Gums,
Opposite the head of the Mall, Boston,

WITH improvements peculiar to himself, continues to substitute natural and artificial Teeth, from a single tooth to a whole set, prepared from different materials, and at various prices, that he warrants to be equal, if not superior in usefulness and beauty to any ever made and fitted by any other Artist whatever (either in the old or new world) and done with the greatest facility to the Patient, and care on the part of the Operator

GREENWOOD'S excellent Powdered Dentrifree, safe and salutary for the Teeth and Gums, prepared and sold only by himself, 25 Cents single box, or 2 dolls 50 cents per dozen

NB For sale, as above—Two Piano Fortes, one new patent with harp stop and additional keys Also, three elegant Guitars, all of the first European manufacture, excellent in tone and touch "

Massachusetts Mercury January 6, 1797

Again on July 22, in the *Columbian Centinel*, he announces "improvements in sets of Teeth, as contrived by Mr Greenwood, are essentially different from any of the kind ever produced by any predecessor or contemporary in the U S "

"DENTAL IMPROVEMENT

The Most Valuable Discovery in the Art
SETS OF TEETH

WHOLE or half sets of artificial TEETH, by a new process, peculiar to Wm P Greenwood, approved Dentist, opposite the head of the Mall, are made and fitted only by himself—his invention is excellent, and has met with universal approbation, from those that have employed him for whole sets, which he warrants to answer every reasonable purpose, and if they do not prove satisfactory to the patient, the money paid for them will be refunded any time within three months after they have been in possession of the wearer. The improvement in sets of Teeth, as contrived by Mr Greenwood, are essentially different from any of the kind ever produced by any predecessor or contemporary in the United States, being far superior in every respect. He therefore wishes to create confidence in those who have had useless experiments made to fix whole sets, to make trial of his new plan, which, if it does not succeed, no compensation to the artist will be expected or wished.

ALL DIFFERENT OPERATIONS OF THE ART *Dental*, practiced as usual, viz cleaning the Teeth with the greatest care, removing the caries from the teeth, and plumbing, regulating the teeth particularly in children, at the time of the second dentition, which will ensure them an even set for life, if they are attended to in season.

TEETH AND STUMPS EXTRACTED WITH AS much ease as the nature of the case will admit, Dentrifree, Brushes, &c proper for teeth and gums to be had as above. *Cash for sound front teeth*
July 15 "

Columbian Centinel—July 22, 1797

In 1816 William Pitt Greenwood, Thomas Grammis, William Parson and Thomas Barnes were practicing dentistry in Boston. In 1832 Greenwood moved to Roxbury but returned to Boston shortly before his death.

The honorary degree of *Doctor of Dental Surgery* was conferred upon William P. Greenwood on February 18, 1842, by the *Baltimore College of Dental Surgery* at its second annual commencement. At the meeting of the *American Society of Dental Surgeons* in November of 1841, he was made a member and at the meeting held in Boston in September 1842, Greenwood gave an interesting account of the state of dentistry fifty years previous.

It was remarked of the aged practitioner that his step was "still elastic, and his mind possessed of the vigor and freshness of youth"⁵ His vivid memories made interesting reminiscences in later years. He had, early in the century, restored the old family-tomb on Copp's Hill, which he had rescued from desecration, and he liked to relate how, accompanied by the Hon. William Sullivan as an advocate, he had descended with fire and sword upon the party who had dared to sell the bones of his ancestors. Frequently on his periodical visits to this place he would point out the locality of his father's earlier residence on Salem Street, near Christ Church, and the spot, a few rods distant, where a battalion of British troops were quartered in 1775. From here he and his friend, Caeneau, saw them march off on the morning of June 17 "in high feather, to be brought back in the afternoon wounded, dying, and dead, their blood being bailed from the boats like water." He could remember, too, Major Piteau, as he was being carried along, mortally wounded, through Charter Street to be buried afterwards under the neighboring Church.⁶

On Saturday, May 10, 1851, in the full possession of all his faculties, being the eighty-fifth anniversary of his birthday, he died, and was buried in the family vault at Copp's Hill.

William Pitt Greenwood's son Edwin Langdon, April 19, 1807-March 4, 1865, and his grandson, Alfred, Jr., April 16, 1841-December 21, 1879, a graduate of Harvard College in 1824, both became dental practitioners.

Clark Greenwood (1764-1810)

Clark Greenwood, the fourth son of Isaac Greenwood, Sr., was born on March 8, 1764. In his early life he learned the professions of his father, and in 1788, John Greenwood, his older brother, sent for him to come to New York and take over the profitable business which he had established there as a mathematical instrument-maker and ivory-turner. In the New York Directory of 1789, he is so listed at 199 Water Street, the former address of John, prior to his moving to 19 William Street.

John carried on the profession of dentistry, while Clark continued at the old business, except that at times he assisted his brother with his dentistry.² It is thought that he never practiced dentistry to any great extent, or "any further than to supply those deficiencies which his own case might require." He died a bachelor, February 15, 1810, having acquired a competent fortune.

With William Pitt and Clark we have concluded the life histories of Isaac Greenwood, Sr., and his sons. To make the story complete, some mention should be made of other members of the Greenwood family, and though they be of the generation beyond the scope of this historical presentation, some succeeded to their father's practices, therefore they are included.



Fig. 105 — Isaac John Greenwood, 1795-1865, son of John and Elizabeth (Weaver), at the age of 13. Painted by J. A. MacDougall in 1838 and reproduced by courtesy of the Misses Greenwood and The Frick Art Reference Library. Now owned by The New-York Historical Society.

Isaac John Greenwood, D D S , M D (1795-1865)

John Greenwood was succeeded in his practice by two of his sons, Isaac John and Clark. Isaac John was born in New York City on July 17, 1795, and lived the allotted three score and ten years, passing away on May 14, 1865. He practiced for twenty-four years the profession of his grandfather and father with perseverance and careful study, retiring

at the age of 45 This is in accordance with his "*Stray Notes on Dentistry in America*," page 48, which *he collected* in 1859 In 1902, his son, Isaac J(ohn), typed the collection of *Notes* and had them bound The manuscript, which I now have in my library, has been very helpful in the preparation of this period

Upon giving up active dental practice Isaac John Greenwood turned his attention to recording important *cases* observed during his practice, some of which were later published His first effort in this direction was in 1828, when he translated C F Delabarre's "*Traite de la partie mecanique, etc*" into English "*A Review of the Mechanical Part of the Surgeon Dentist*" In his Preface as translator, he remarked that he was doing it in order to obtain a clearer and better understanding of his profession

"Neer undertake to make or mend
That which you do not comprehend"

Translating this splendid work of Delabarre's apparently encouraged him to write one of his own, and in the same year he finished his "*Treatise upon Dentition and the Manner of Cleansing, Scraping, Filing, Plugging and Extracting the Human Teeth*" The numerous illustrations, all well done, he drew himself Both unpublished manuscripts, bound in one volume, in a beautiful tooled leather cover, are now in *The Library of the New York Academy of Medicine*

On March 8, 1841, he became a member of the *American Society of Dental Surgeons*, serving the following year as a collaborator on the *American Journal of Dental Science* In March of 1842, the *Baltimore College of Dental Surgeons* conferred upon him the degree of *Doctor of Dental Surgery*, and his M D he obtained the same year from the *Shurteff Medical College* in Illinois All three certificates are now in *The Library of the New York Academy of Medicine* as well as the beautiful China silk membership *Roll* of the *American Society*

Further contributions to dental science were

Cases of Irregularities *American Journal of Dental Science*, 1839-1841, 1st ser, 1 258-261

Case of Antrum Disease *American Journal of Dental Science* 1841-1842, 1st ser, 2 177-179 *Dental Forceps*, 1844, 1 168

Description of a Case of Alveolar Abscess *American Journal of Dental Science* 1841-1842, 1st ser, 2 291-292 *Dental Forceps*, 1844, 1 42

On Plugging the Teeth *American Journal of Dental Science* 1842-1843, 1st ser, 3 237-240 *Dental Forceps*, 1844, 1 240

Early History of the Profession in the United States *Dental Register of the West* 1861, 15 29-37



Isaac Greenwood
Master Surgeon-Dentist
U. S. Army
New York

Fig 106 —Miniature of Isaac John Greenwood, painted by J W Dodge in 1832. The military style of dress was worn by him while traveling in Europe. (Reproduced by courtesy of the Misses Greenwood and the Friel Art Reference Library. Now owned by The New York Historical Society.)

Clark Greenwood

Of Clark Greenwood, John's younger son, little is known, except that he was born in 1797 and died at the age of 41, somewhere in the vicinity of Jamaica, Long Island, on May 6, 1838. He likewise followed the practice of dentistry.

George Henry Gay

George Henry Gay, the son of Mary (daughter of Isaac Greenwood, Sr.) apparently studied dentistry about 1830 with Josiah Foster Flagg, in Boston. In 1831 and 1832 he attended medical lectures at Harvard, and then those on dentistry under Flagg's brother, remaining in practice until his death in 1840.

References

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- 2 Greenwood, Isaac J(ohn). *Stray Notes on Dentistry in America*. Collected 1859. New York, 1902, typescript, 26
- 3 Greenwood, Isaac J(ohn). *The Revolutionary Services of John Greenwood of Boston and New York, etc., 1755-83*. New York, 1922, 140-141
- 4 Greenwood, Isaac J(ohn). *op cit* No. 2
- 5 Greenwood, William P. *Venerable Practitioner*. *Am J Dent Sci*, 1842, 1st ser., 3:69-78
- 6 Greenwood, Isaac J(ohn). *William Pitt Greenwood Memorial Biographies of the New England Hist & Geneal Soc*, 1880, 11:208-271



CHAPTER XIV

RICHARD CORT[LAN]D SKINNER

FOUNDER OF THE FIRST AMERICAN DENTAL CLINIC,
AUTHOR OF THE FIRST AMERICAN DENTAL BOOK

RICHARD CORT[LAN]D SKINNER'S activity in this country began with the following interesting letter of September 29, 1788, addressed to Benjamin Franklin (1706-1790) It was found in the *Calendar of Franklin Papers* (V 3, p 380) in the *American Philosophical Society*, Philadelphia

"Philad 29th Sept 1788

Sir,

An unfortunate young man, influenced by motives of extreme necessity and distress, reviewing his situation, begs permission to address his Excellency Doctor Franklin, and hopes for that kind indulgence for the impropriety of his address, which ever marks the characteristic of the great and good—Altho' unknown to your Excellency, a stranger poor and friendless, ventures to hope for that patronage and assistance, without which (from some exalted public character) the greatest abilities may be unsuccessful in any laudable pursuit

Your Excellencys goodness will undoubtedly extend so far as to forgive the presumptuous young man who now addresses you—he has lately arrived in this city,—by a series of misfortunes has lost his hereditary patrimony—has since studied dentition with the celebrated Doctor Ruspini of Pall Mall London—has no other dependence for a subsistence—and now wishes to practice that profession in this city

Doctor Franklin's well known sympathy and benevolence induces him to make this application—he asks not alms—but with great diffidence and fear he solicits from his Excellency the loan of the trifling sum of Twenty Dollars to enable him to begin to live—to save him perhaps from inevitable destruction, or what is worse—the horrors of a prison—Experience, which is the unerring touchstone of truth, confirms him in opinion, that the unfeeling world collectively, looks down with contempt upon the poor and the distressed—they wish for no acquaintance with calamity Doctor Franklin is a friend to the world,—a friend to the distressed—and perhaps, he will be the friend of a young man who wishes to live, and be usefull to society—a young man who fears he innocently, and unintentionally offends by his extraordinary and very singular address—but his necessities—his

cruel necessities preponderate every other consideration—Therefore cannot leave him liable to any imputation who is—

With sentiments of respect & esteem

Your Excellency's most obed

and very humb Serv

Rd Cort[lan]d Skinner

His Excellency Benjamin Franklin, Esq "

Richard C. Skinner to B. Franklin 29 Sept 1788
F. P. v. 36, no 92 (Cal. v. 3, 380)

Page 3

Before my first Collection, looks as if the
Constitution, for the poor and the distressed
they were, for no acquaintance with the
Constitution is required to the
a, and to the Constitution— And, I say, he
will be, for a young man who
wishes to be, and he will be, and
a young man who is to be, and
Constitutionally, and in the Constitution
and very singular and rich— But his
Piercy has— His Great Nephew, the
our father's consideration— There is
cannot leave him liable to any imputation
who is, and

With Sentiments of respect & esteem

Your Excellency's most obed
and very humb Serv

Rd Cort[lan]d Skinner

Benjamin Franklin

Fig 107—Letter of appeal to Benjamin Franklin, for the loan of twenty dollars to keep a poor dentist from jail. It is this signature that gave us the full name of Richard Cort(lan)d Skinner (Courtesy of the American Philosophical Society)

Unfortunately neither Franklin's account books nor his papers indicate whether Skinner obtained the loan of \$20 he requested to save him "the horrors of a prison." At any rate he did begin, within six months, the practice of his profession in this country and became "useful to society." Having suffered too, he endeavored to serve the poor by establishing the first dental clinic in this country. The letter not only enabled us to ascertain Skinner's full name, heretofore unknown,¹ but also his early qualifications, the name of his celebrated preceptor, and means of entering the profession. His preceptor, Bartolomeo Ruspini, was an Italian dentist who practiced his profession in London with great success for more than thirty years. "He was patronized by all the great personages of the Kingdom and also by the Royal family, from whom he received special marks of distinction."² With the aid of the London *Freemasons' Lodge*, of which he was an influential member, he was able to found an orphanage for girls which was known by his name. He spent a large portion of his fortune, derived as a result of his professional work, in furthering this institution, being moved to do this by his great love for children. He was an early advocate of the early treatment of children's teeth, insisting that through this neglect in dental practices in England, there later resulted a widespread loss of teeth.



Fig. 108 —Chevalier Bartolomeo Ruspini, Celebrated Preceptor of Richard Cort(lan)d Skinner (Reproduced by courtesy of Dr Theodor Blum)

In 1768 Ruspini published his *Treatise on the Teeth* which was remarkably well received, so much so that a number of editions were

printed between that time and 1797³ He is especially remembered for his invention of an improved mouth mirror, a new means then of dental examination, which has come into universal use

We thus learn that Skinner brought to this country the best knowledge of the profession of that day, which should dismiss the fallacy of the widespread belief that the type of dentistry then practiced in America was only quackery Skinner began his practice in Philadelphia early in 1789, and one of his earliest advertisements appeared in the *Federal Gazette* on March 6

"SKINNER (Dentist)

Mr Skinner, Dentist,—Two doors below Dock in Second-street —Transplants natural and artificial Teeth, from a single Tooth to a complete sett, those transplanted grow as firm in the jaw, and are equally as useful as the original teeth—The artificial are of a peculiar kind, the enamel of which is as beautiful as they upon the human teeth, they do not change their colour, neither can they be distinguished by strict inspection from natural teeth Mr Skinner being perfectly acquainted with the practice and remedies of one of the most eminent and skillful Dentists in London, engages to cure, in a few moments, that excruciating pain proceeding from carious teeth, without extracting them He demands no compensation for any operation that does not equal the most sanguine expectations

Federal Gazette, (Phila) no 135, March 6, 1789 "

Here he remained until 1791 when he moved to New York City At first he was located at 27 John Street On July 15 and August 6 he had a lengthy notice in the *New York Weekly Museum*, part of which reminds us of some of the claims made today

“ S K I N N E R ,

Surgeon Dentist,

Respectfully informs the Ladies and Gentlemen of New-York, and the Public in general, that he has been a pupil of one of the most eminent practitioners of that profession in London, that he transplants natural, and substitutes artificial teeth, from a single tooth to a complete whole set Those transplanted grow as firm in the jaw as the original teeth The artificial are of a peculiar kind, the enamel of which is as beautiful as that upon the human teeth, they neither change their colour, nor can they be distinguished by the strictest inspection from the natural, they are substituted without extracting the old stumps, or giving the least pain in the operation

He cleans and restores the teeth to their original whiteness, and the breath to its natural sweetness, by removing the tartar which by negligence and inattention collects upon the teeth, insinuates itself under the gums, separates them from the teeth, and is the first cause of introducing those vitiated juices, or scorbutic humours commonly called the scurvy, an evil that ought to be immediately removed, and an object that should be particularly noticed and remedied by all classes of people

He performs every operation incident to dentition, and engages to cure in a few minutes the most excruciating pain proceeding from various teeth, without extracting them

He demands no fee for performing any operation that does not equal the most sanguine expectations

Skinner's DENTIFRICE POWDER and TINCTURE for the Teeth and Gums (composed of such medicinal preparations as are adapted to the preservation of these parts) by persevering in the daily use of them, will preserve the teeth from decay, the gums in health, and the breath pure, they are pleasant to the taste, and destructive to nothing but disease Sold at the Dentist's Rooms, No 27, John-street, opposite the Play House

NB The indigent, afflicted with pains in the teeth, will be relieved gratis "

On August 13 and September 17 there was a brief notice in the same newspaper, stating that he "will give one guinea each for live front teeth, and a generous price for any quantity of dead front teeth " The dead teeth were not only for transplantation, but were inserted in carved ivory blocks to take the place of the natural ones, a practice then generally common in the profession A photograph of an actual specimen is to be found in Chapter XVI on Greenwood's relation to Washington (Fig 116)

From August 15 to April 21, 1792, the following notice was carried in the *Weekly Museum* Here again we are reminded of the slogan adopted by the profession a few years ago "*A Clean Tooth Never Decays*"

" S K I N N E R ,
Surgeon Dentist,

WITH sentiments of gratitude acknowledges the patronage he has hitherto been honored with in the line of his profession, and respectfully informs his friends and the public, that he will assiduously study to merit every favor

It is an indisputable truth that a clean, regular, sound set of teeth, contribute greatly to the beauty of the face, that they are indispensibly necessary to the preservation of a clear and distinct pronunciation, as well as useful in mastication, Mr Skinner engages to furnish even those who have been so unfortunate as to loose the whole of their teeth with any number from a single tooth to a complete whole set, those he transplants grow as firm in the jaw as the original teeth, the artificial are substituted without extracting the old stumps, or giving the least pain in the operation

He cleanses and restores the teeth to their original whiteness and the breath to its natural sweetness, by removing the tartar, which by negligence and inattention collects upon the teeth, insinuates itself under the gums, separates them from the teeth, eventually occasions their loosening and falling out of the jaw, and is the first cause of introducing those vitiated juices or scorbutic humors commonly called

the scurvy, evils that ought to be early noticed and remedied by all classes of people

Mr Skinner's intimate knowledge of the practice and remedies of one of the most eminent Dentists in London, enables him to give permanent relief in a few minutes, from the most excruciating pain proceeding from carious teeth without extracting them, his very low charges (from what has heretofore been demanded) for operations upon the teeth, must be satisfactory (it is presumed) to every person who pleases to consult him, he demands no fee for performing any operation that does not equal the most sanguine expectations

Skinner's DENTIFRICE POWDER and TINCTURE for the Teeth and Gums composed of such medicinal preparations as are particularly adapted to the preservation of those parts by persevering in the daily use of them, (after the tartar is extracted) will give the teeth a beautiful whiteness, preserve the gums in health, and the breath pure, they are pleasant to the taste, and destructive to nothing but disease Sold by most of the apothecaries, stationers and perfumers in New-York, and the proprietor, No 27, John-street, opposite the Play House, with directions, price 2/6 each

NB The indigent, afflicted with pains in the teeth, will be relieved gratis

New York, August 15, 1791 "

Richard Cort[lan]d Skinner's position is unique in American dentistry for he was the first dentist to ask and receive an official position in a medical institution and was likewise the first to publish a dental book in this country Shortly after the founding of the *Dispensary of New York in 1791*, it appears that Skinner offered his services to the institution so that the teeth of the indigent of the city might be properly cared for According to page 24 of his *Treatise on the Human Teeth*, 1801, this offer was accepted and the first dental clinic was established The following copy is the certified statement

"Copy of Certificate given by the Board of Managers of the Dispensary of the City of New-York, to the Author

New-York, September 2, 1792

Sir,

The Board of Managers of the Dispensary received yours addressed to them,—they directed me to acquaint you of the acceptance of your offers, in such cases as may be of avail to the Dispensary It gives pleasure, Sir, to find that an institution founded upon such motives, will meet with your benevolent attention

I am, Sir, with respect,
your obed't Servant,
Wm Cock, Secr'y

Mr Skinner Surgeon Dentist "

It is interesting to learn that as early as this, the medical profession recognized the value of dental service in hospitals, and introduced the dental clinic as part of their routine Today this service plays an

important part in hospital routine. In May of 1792, he occupied the quarters at 56 William Street, from which John Greenwood had moved, and the following year was located at 47 Nassau Street near Beekman, next door to the *Dispensary*.

Besides being engaged in the practice of dentistry, according to the advertisements of May 19 and July 28 (*New York Weekly*), he "substitutes artificial eyes in such a manner, as to hide the deformity occasioned by the loss of an eye, and which cannot be distinguished by strict inspection from the natural eye. He demands no fee for performing any operation, unless it equals the most sanguine expectations."

Skinner evidently made New York his permanent headquarters and from there visited other cities for indefinite periods.

According to a lengthy advertisement in the *Baltimore Daily Intelligencer*, April 1, 1794, where Skinner practiced several weeks, he remarks that he was "honored with the appointment of Dentist, to the Dispensary of New York on September 30, 1791." This would make it a year earlier than the date mentioned in his book and almost immediately after its founding. From this and his other advertisements he further states "poor people afflicted with complaints in the teeth and gums, will be attended at the dispensary, Hospital, Alms-house, or at the house of the operator, and relieved gratis. A request from any Physician or surgeon of this city, or any of the superintendents, trustees, or official visitors of either of those benevolent institutions, will be immediately attended to, and assistance given free of any expense."

From this, one finds that the clinic service was not only given at the Dispensary, but likewise included the Hospital and the Alms-house. The latter part of his statement shows that some form of social service was also introduced so that only the needy received this gratuitous service.

Besides being engaged in the practice of dentistry, according to the above advertisement, he was "the only operator in America that can Substitute or Set Artificial Eyes, and as the deformity occasioned by the loss of an Eye is very great, those persons who have been so unfortunate may now avail themselves of this favorable opportunity of having it replaced in so curious a manner, as cannot possibly be distinguished, by strict examination, from the original, and in many cases without a painful sensation. To demonstrate to the doubtful the practicability of this operation, he has prepared or fitted one for the Orbits of his own Cranium or Head, which he will cheerfully show to any person who will do him the honor to call and view it, at the same time will be presented (Gratis) to every applicant, a small Treatise upon the Human Teeth, attention to which, will obviate every Disease incident to the Teeth and Gums."

Until now the first dental work published in America was supposed to have been Skinner's "*Treatise on the Human Teeth*" in 1801. Apparently this was preceded by a previous edition, not copyrighted, as early as 1794, according to the above notice. This same "presentation" appears in several other notices, as in 1796, so there can be little doubt of its existence. However, so far no one has reported a copy of this edition.

On November 5, 1795, we find him in Hudson, for in the *Hudson Gazette* of that date he stated that he would remain at least a week. On March 26, 1796, the "*Norfolk (Virginia) Herald*" reported that he would remain there for "eight or ten days." Both of these advertisements read like his Baltimore announcement, so need not be repeated. On his way back to New York, he again visited Philadelphia, according to the "*Federal Gazette*" September 13, 1796.

Beginning with 1800, Skinner became a constant visitor to Hartford, Conn., for in the *Hartford Courant*, September 29, he wrote "The most majestic formed person, possessing the proportions, features, symmetry and complexion of a Venus, or Adonis, with all the fascinating charms of the Graces, by exhibiting a set of irregular, black or rotten teeth, will, in a great measure, lose the wonderful effect their charms and accomplishments would otherwise inspire." On October 5, 1801, he again was in Hartford where "in consequence of the Yellow Fever in New York he will continue until the 24th." He also had "for sale his *Treatise on the Human Teeth*."

In September, 1802, he was married at Hartford, Conn., "by the Rev Mr Flint, to Miss Mary Whiteman, daughter of the late Rev Elnathan Whiteman of the same place," and according to the *Hartford Courant*, he evidently remained in that city until October 18.

"Dr Skinner, Surgeon Dentist, respectfully informs the Ladies and Gentlemen of Hartford and its vicinity that he positively departs for New York on Monday the 18th inst. He presents the warmest effusions of a grateful heart to those persons who have at any time honored him with their patronage, and assures them it is one of the most pleasing consolations of his life that he has in all cases endeavored to merit the unequivocal approbation and gratification of those persons who have been pleased to employ him. The extensive and successful practice he has enjoyed in New York and Connecticut for twelve years past justifies the presumption that he has given general satisfaction to his professional capacity. Should any case occur however contrary to this expectation, he will even feel it not only a pleasure but an indisputable duty to exhibit an accommodating disposition and accede to all reasonable requests, by giving every applicant even more than the full value of his fee."

Again on December 18, 1805, he announced

"Dr Skinner is the only operator in America who substitutes or sets artificial teeth. After the first operation his old customers will only be charged one-half the rate."

Following in Greenwood's steps he advertised in the *New York City Directory* on June 25, 1802, at which time he resided at No 64 Fair Street

R. C. SKINNER,

SURGEON DENTIST TO THE CITY DISPENSARY, &c.

PRESENTS the warmest effusions of a grateful heart to those persons who have honored him with their patronage, particularly to the Chemical and Medical professors of Columbia College, and many of the Physicians and Surgeons of this City, and respectfully informs them, and the public in general, that to merit the approbation, and gratify the wishes of every individual who may please to employ him in his professional capacity, will be the greatest pleasure of his life. He performs every operation incident to the teeth and gums, the substitution or setting of artificial teeth, eyes, nose, legs, &c. &c. and demands no fee for his services, unless his performances equal those of any other operator on earth —

Poor people afflicted with complaints in the teeth and gums will be attended at the Dispensary, Hospital, Almshouse or Prison, and at the house of the operator, No. 64, Fair-street, and relieved *gratis*. — A request from any Physician, or Surgeon of this city, or any of the Superintendents, or official Visitors of either of those Institutions, will be immediately attended to, and assistance given free of any expense.

New-York, June 25, 1802,

Fig 109 —Advertisement of Richard Cort[lan]d Skinner, as it appeared in the *New York City Directory* for 1802

Even in those early days professional esprit de corps was not always a guarantee against unpleasant comments upon individual methods of practice and the consequent bitterness of feeling which criticisms of this kind are prone to engender. It seems that one of Skinner's patients subsequently fell into the hands of Gardette, and the strictures which he uttered upon the nature of the work and the character of the operator, together with the use of the term "a wheel-barrow," which he used in a contemptuous way of Mr Skinner, so aroused the latter that he instituted a suit for slander against Gardette, the whole issue in the case turning upon the "wheelbarrow" incident.

We have already alluded to Skinner's *Treatise on the Human Teeth* of 1801, as supposedly being the first dental work written and published by a dental practitioner in this country. Apparently an edition in some other form had previously been published about 1794, as already stated, and then enlarged, for on the 25 of April, 1801, we find that the application for a copyright was applied for. The book was not actually for sale until June 20. Just as the first exclusive contribution to dental literature, the often printed *Zene Artzney*, 1530-1576, was written and

intended for the laity and not for the profession, so was the first published dental work in this country

A Treatise on the Human Teeth is a pamphlet of only twenty-six octavo pages, written, as were many like publications before and since, as an advertisement of its author. There was no intention of helping professional confreres, but a desire to educate the public in oral hygiene principles. Inasmuch as these books contained much information the public should know, and were undoubtedly the means of bringing to the notice of many the resources of dental science for arresting dental disorders and repairing injury, such works may be commended. Although strictly speaking an author's advertisement, this little work was well within recognized ethical lines, subsequent American writers have no cause to be ashamed of this initial work, nor of its author, the founder of American dental literature.

This work is exceedingly rare, and a brief resumé of its contents may on that account be of interest. The author, in his preface, wrote

"Whatever are the merits or defects of this little production, the importance of the subject treated of, as respects every individual, it is presumed, will not be denied. The author has endeavored to combine perspicuity with utility, concisely explaining the causes of disease and decay of the human teeth, their remedies, and only sure and certain method of preservation, etc etc. The eminent writers on these interesting subjects are too voluminous and expensive to obtain general circulation. The humble efforts of the author of this little tract obviates that difficulty. It is put into the hands of the public for the inconsiderable sum of thirty cents."

His brief descriptions of the structure of the teeth, of the eruption of teeth, of their disorders and the general causes of dental decay, of the alveoli or sockets, of scurvy in the gums, of abscesses in the sockets or gums, of the tartar and septic acid, and directions for extracting teeth, are in accord with accepted ideas current at the time he wrote. His advice to parents and guardians of children regarding the teeth of those under their charge, while brief, was to the point, for in his "*Advertisement to the Public*" he continued

"The humble parent of this little infant, claims no exclusive merit for the knowledge he wishes to communicate, ardently desirous of rendering some service to Society, and uninfluenced by expectations of remuneration, he ushers it into the world with a full conviction of the importance of the subject, and humbly hopes the mantle of charity will be thrown over its defects, and that the subject treated of, will both merit and receive the attention of all classes of people. As experience, (the unerring touchstone of truth) daily demonstrates the fatal effects of negligence."

He then began his treatise

"It is an incontrovertible truth, that a clean, regular, sound set of teeth contribute greatly to the beauty of the human physiognomy, that they are indispensably necessary to the preservation of a clear

A
TREATISE
ON THE
HUMAN TEETH,

CONCISELY EXPLAINING THEIR STRUCTURE

AND CAUSE OF

DISEASE AND DECAY

To which is added,

THE MOST BENEFICIAL AND EFFECTUAL METHOD OF
TREATING ALL DISORDERS INCIDENTAL TO THE
TEETH AND GUMS, WITH DIRECTIONS FOR
THEIR JUDICIOUS EXTRACTION, AND
PROPER MODE OF PRESERVATION

INTERSPERSED WITH OBSERVATIONS INTERESTING TO, AND
WORTHY THE ATTENTION OF EVERY INDIVIDUAL

By R. C. SKINNER,
Surgeon Dentist

NEW-YORK

Printed by JOHNSON & STRYKER, No 29 Gold Street,
FOR THE AUTHOR

1801

Copy-Right secured

Fig 110 —Title page of the first printed dental book in America, 1801 (though Skinner states that previous editions in 1794 and 1796 "would be given gratis to every applicant" So far, copies of these editions have not come to light)

and distinct articulation, and formed by Nature for masticating and preparing the food for digestion, the preservation of them is, therefore, unquestionably of consequence, and worthy the attention of every human being ”

The work consisted of only 26 pages, divided into the following subjects

- Of the Structure of the Teeth
- Of the Eruption of the Teeth
- Of the Disorders of the Teeth, and General Causes of Decay
- Of the Caries, or Decay of the Teeth
- Of the Alveoli, or Sockets
- Of the Scurvy in the Gums, commonly so called
- Of Abscesses in the Sockets or Gums
- Of the Tartar and Septic Acid
- Directions for Extracting Teeth, &c

He spoke of the distress which frequently accompanied the eruption of the wisdom teeth, owing to want of room in the jaws, which he said, “must be borne a considerable time, or the tooth extracted to obtain ease” He strongly advised “lacerating or cutting the gum down to the teeth,” to relieve the disorders attending difficult dentition of infants, and combated the idea that the resulting cicatrix would later occasion a more difficult eruption of the teeth. He concluded his admonitions enforcing the importance of cleanliness of the teeth and their surroundings in the following words “It is an established principle from time immemorial, among the ancients as well as moderns, that cleanliness contributes to health. If this theory is admitted (which it is presumed no person will deny), it incontestably proves that its application to the teeth and gums, as constituent parts of the body, is as necessary as to the face, hands, feet, or trunk.” Caries, he wrote, “may arise from either internal or external causes and may be divided into soft and dry.” This was an accepted theory at that time. He said further “In all cases where a decay is perceptible, the rotten part should be thoroughly and judiciously removed, and the cavity perfectly and solidly filled with gold, silver, or lead-foil, prepared for that purpose. If the decay has penetrated to the nerve of the tooth, and pain ensues, it must nevertheless be thoroughly removed, the nerve effectually destroyed, and the cavity filled as before mentioned, or the tooth extracted, otherwise acid and saline particles will enter the hole or cavity of the tooth originally filled with the nerve or cord, wound its membranes, and probably produce an abscess in the socket and gum.”

Diseases, he continued, “sometimes arise in the sockets when the teeth are perfectly sound, these proceed either from a constitutional cause, or a natural effect taking place prematurely. The former may be removed by proper corrective prescriptions, frequent scarifying, or bleeding the gums, and externally applying antiscorbutic and astringent medicines. The latter is seldom, perhaps never, cured. It generally

occasions a total loss of the teeth contiguous to the diseased part. This disease begins by a wasting of the alveolar processes at the edges of the socket, which gradually proceeds to the bottom, the gum loses its connection with the alveolar process and the neck of the tooth, assumes a livid appearance, and continually discharges pus from the diseased surfaces, the teeth affected at length become extremely loose, and at last drop out."

He concluded his treatise with a short chapter upon extracting teeth, and from his directions one would infer that he used forceps for his operation. He strongly advocated saving the teeth. He said, "A tooth with one fang or root, that gives pain from any other cause than an abscess, can easily be cured and rendered serviceable, oftentimes, during a person's life. It would be bad practice to extract a front tooth or stump, because it would remove and destroy the solid base, indispensably necessary for the firm security and masticating use of an artificial tooth, which may be set to very great advantage where there is a solid stump standing."

His kindly disposition is evidenced by the following paragraph:

"Poor people afflicted with complaints in the teeth and gums, will be attended to at the dispensary, hospital, almshouse, or at the house of the operator, No. 64 Fair Street, and relieved gratis. A request from any physician or surgeon of this city, or any of the superintendents, trustees, or official visitors of either of those benevolent institutions, will be immediately attended to, and assistance given free of any expense."

This kind offer is duly acknowledged by the Board of Managers of the *Dispensary of the City of New York*, on September 2, 1792.

We infer, from a perusal of the following, that the author did not confine his labors exclusively to dental surgery.

"ESTABLISHED FEES

- For setting an artificial eye, nose, or ear,—3 guineas each
- For setting an artificial flexible leg, perfectly to imitate nature in muscular motion—4 guineas each
- For setting a common cork leg—3 guineas
- Transplanting a tooth which grows firm in the head—3 guineas each
- Grafting, or setting human teeth in any way on gold—4 dollars each
- Grafting, or setting human teeth on silver—3 dollars each
- Fixing and setting best artificial teeth, on gold springs or pivots—2 dolls 50 cents
- Grafting or setting (any way) artificial teeth of second quality—2 dollars each
- Grafting or setting third quality—1 doll 50 cents
- Grafting or setting fourth quality—1 dollar
- Filing, eradicating caries (or rotten parts), or filling cavity with silver—or lead-foil—50 cents each
- Filling cavity with gold—1 dollar each
- Extracting teeth abroad—1 dollar each

For extracting teeth at his own house—50 cents each Children's teeth, half price

Eradicating tartar, and cleaning the teeth, from 1 to 3 dollars each set, in proportion to their situation "

In concluding, he said

"R C Skinner embraces this opportunity of acknowledging the very great obligation he feels himself under to several medical gentlemen of this city, who have particularly honored him with their patronage He presents them (and every other person who has either patronized or employed him) the warmest effusions of a grateful heart, a heart that will ever feel, and acknowledge (while its pulsations continue) every obligation and favor, either from individuals or the public

"The public are further respectfully informed, that in any and every case, where part, or the whole of the teeth are decayed and lost, new ones may be substituted or set, even if there is neither tooth nor stump standing in the head, from a single tooth to a complete whole set Even poor people may enjoy the luxury of possessing a good set of front teeth, as some are set as low as one dollar each

"New York, June 20, 1801 "

Taking it all in all, this unpretentious little pamphlet by Mr Richard Cort[lan]d Skinner, Surgeon Dentist, of New York, pioneer dental writer of the United States, well holds its own when compared with the best of its class and time

According to the newspapers of June 7, 1834, Skinner was still practicing in New York City, and the City Directory for that year states he was located at 20 Park Place The directories after that year do not contain his name, therefore we might presume he died in 1834, after a period of forty-six years spent in active practice in that city

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CHAPTER XV

CHARLES WILLSON PEALE (1741-1827)

WE next come in touch with a distinguished character in American history, Charles Willson Peale, of Philadelphia, who seems to have been a kind of universal genius. Peale was born at Chester, on the eastern shore of Maryland, April 16, 1741, thus being three years the junior of West and Copley. His genius was of a very versatile nature, being, as his biographer says,¹ a "harness-maker, clock and watch-maker, silversmith, painter in oil, crayon and miniature, moulded the glasses and made the shagreen cases for the latter, was a soldier, legislator, lecturer and preserver of animals, whose deficiencies he supplied by making glass eyes and artificial limbs, constructed for himself a violin and guitar, modelled in clay, wax and plaster, and was the first dentist in this country who made sets of enameled teeth." Not until he was twenty-six years of age, did he turn his attention to painting in oil. "Encouraged by the material aid of several gentlemen of Annapolis, he was enabled to proceed to London, and pursued his studies in the *Royal Academy* during the years 1780-81, under the direct tuition of Benjamin West, who ever took much interest in his countrymen. Returning home, he followed his profession with great success, painting portraits of the great men of that great era, which today are regarded as almost priceless legacies. After the close of the war, Peale painted assiduously in Philadelphia, and in 1795 commenced the great museum which bore his name. The large collection of portraits formerly in Barnum's establishment was formed by this C. W. Peale. The building in Philadelphia, near the site of the Continental Hotel, was burned down, and the principal contents of Peale's museum of that city were transferred to Mr. Barnum. In 1791, he made the first effort in America to found an academy of design, where native artists might study and have their productions placed on exhibition for public approval. Though his first attempt did not prove successful, the tireless worker tried again, and in 1809 succeeded so well with his plans that he achieved the establishment of the *Philadelphia Academy of Fine Arts*, and lived to see it become a noble monument to his efforts. He and his son, Rembrandt, furnished upwards of one hundred original paintings. He also contributed to seventeen exhibitions of the Academy."



Fig 111—*The Artist in his Museum* by Charles Willson Peale (Reproduced by courtesy of the *Pennsylvania Academy of Fine Arts*)

It was he who discovered the mastodon in Virginia, and expended over \$5,000 to deliver it to Philadelphia, where it became the beginning of the famous *Peale Natural History Museum*, which then was a gigantic undertaking of its kind. It contained two hundred prepared specimens of animals, one thousand birds and four thousand butterflies. Like Rodriguez Ottolengui, he enjoyed the beautiful and varied forms of the butterfly. The museum also contained thousands of insects and many thousands of fishes and exhibits of water life. He was a student of nature and published many works pertaining to art and architecture, and his writings, as well as his contributions to other scientific fields, illustrate his broad and liberal disposition. The invention of plaster of paris, when mixed with lime, sand and marble dust, employed to restore incomplete statues, is credited to Charles Willson Peale and is still used today. It was this same talented and cultured man who gave to the dental profession the incorporation of platinum in porcelain work, and this contribution to present art work in porcelain shading, an aid to dental progress as well, has deserved greater consideration. It is a strange coincidence that he who was so deeply interested in the life of Washington, should have died on the birthday of the great general, February 22, 1827.

In the biographical sketch quoted in the opening paragraph of this chapter, there has come down to us the information that Charles Willson Peale was also a dentist, but there is little to substantiate this.

Rembrandt Peale (1778-1860), in an edition of the *New American Encyclopedia*² wrote

"My father, Charles W. Peale, at an early age losing his teeth, supplied himself with artificial ones made of ivory, as usual. But about the year 1807, reading in the newspapers some account of what was then called 'mineral teeth,' he employed himself in making many experiments to ascertain the best composition—procuring the finest Chinese clay, silex, and platina filings, constructed furnaces, muffles, etc., moulded teeth and gums in wax, made casts in plaster and brass, beat the gold plates into form, made platina wire and gold springs, and finally furnished himself and some of his friends with the first porcelain teeth that were made in America."

He furnished his son, Rembrandt Peale, with a set in 1806, and finally gave instruction of his methods to Mr. Barabins, a dentist of that city.

To A. A. Plantou, must be accorded the credit of initiating here an art which has since attained almost gigantic proportions.³ It is almost equally proved that Charles W. Peale was the next after Plantou to manufacture mineral teeth. His first teeth were made with holes through them for riveting to the plates, as he had been accustomed to do with teeth of animal substances. These proving inefficient, he then placed platinum wire in the composition before firing it. (See Vol. I, Fig. 172.)

The next principal experimenter, Samuel W Stockton, who commenced his experiments in 1825,⁴ stated

"It may be sufficient to say that during the 18th century or in Washington's lifetime Peale's only interest in the subject was confined to supplying his own needs when such dental aid was not available. His correspondence indicates that he, like others, similarly resourceful, undertook to carve teeth from bone or ivory to be fitted to the roots or to plates and in some cases using the teeth of animals adapted to the purpose

"It was not until his latter years in 1822 that being dissatisfied with a set made for him by Plantou, the dentist, and having found that bone and ivory teeth were subject to decay he determined to discover the composition of enamel teeth then said to be used in France and attempted to make a set for himself

"Shortly afterwards he wrote that he was 'riding a new Hobby' having installed a small furnace in his house and was 'making assays at Porcelain Teeth'. In the meantime it seems that he had 'to recourse to Hogs and Cows Teeth to be comfortable'. He mentioned that Plantou had been assisted by a Dr Mead in his work and that he was extravagant in his charges. He seems to have been in correspondence with a certain Dr Hasfield of London in regard to the methods employed in making plates or bottoms, etc and the subject of his experiments fill much space in his correspondence and note books. When he finally succeeded in making porcelain teeth for himself and other members of his family, the advantages of their use seemed so great that he considered it a duty to humanity to offer assistance to others who might benefit by his accomplishment in this field. This however was at the close of his long life when he was not encouraged by his family to undertake such activities

"Peale has been credited with many vocations, including dentistry, based upon the hobbies of his old age or his interest in applied art and science chiefly after he had retired from portrait painting"

The following is the story as found in the biography of Charles Willson Peale, and sent to us by his great grandson, Charles Coleman Sellers of New London, Conn,⁵ who now, (1932) possesses the original Peale manuscript⁶

"Another work now engaged his attention, having spent an abundance of time in making artificial teeth of different animal substances, first of ivory, then sea-cows, sea-horse, of which he had made a considerable number of whole sets besides pieces of deficiencies of teeth where a few teeth only was wanting and finding that all those substances very liable to decay and thus become offensive besides the great loss of time, by a repitician of the work, which made him try to find a harder substance in Horses and Cows teeth, of which he made a great number of Teeth but the hardest of teeth he found belonged to Hogs, but they could very seldom be had sufficiently large, the sea-horse has an enamel that is extremely hard very lasting, but the enamel is only a thin coat, and the boney part decays quite as fast as ivory. Therefore the Enamel although so extremely hard soon loses the support of the bone, all graminivorous animals have their teeth of enamel and bone alternately and perpen-

dicular, for the wise purpose of grinding their food, and he dissected the grinders of the cows teeth, especially of old cows, the enamel of them are pretty hard, the shape of the divided tooth is of a convenient size corresponding the size wanted for the grinders of human teeth, and cutting teeth of the same animal are tolerable well adapted to the size of the human teeth, and with such he made many sets of tolerable appearance, the mode of executing them for himself and others, was first to form a plate of pure silver to fit the gums exactly and then to solder a thin plate round each plate that fitted the gums in a perpendicular position on the front of this plate the teeth is riveted—a single rivet was generally sufficient, and to put springs to keep the teeth in their place, he was much indebted to his friend Mr John Dorsey, Mr Dorsey's invention of springs greatly superior to any invention before used, as they permitted the jaws to open their full extent and also every grinding motion, and although his springs is long which is essential as a spring, yet they sett close to the cheeks without causing any irritation, and a round head button on each side of the upper and under jaw in their proper place to which the springs clasped. When his son Rembrandt went to France he sent by him Mr Dorsey's invention of springs desiring him to present to the first Dentist in Paris those springs with the impression that he was serving them with a valuable discovery, General Armstrong directed Rembrandt to Mr Maury and when he waited on that noted Dentist he told Rembrandt that he thought the springs which he used was very perfect, then Rembrandt told him that his father had no other object than to serve him with what he conceived was a valuable improvement in Springs, Mr Maury said he would try them, and in about 2 weeks that Dentist called at Rembrandt's lodgings to inform him that on trial of Mr Dorsey's invention he had found it superior to any other

"The decay of all animal substances for artificial Teeth is a serious objection to them because they require to be frequently renewed and amongst other substances he once made use of the *Chama*, and thus shell made the most beautiful Teeth, and was tolerably hard, but so liable to be acted on by acids, that in less than 6 months the teeth made of it became porous, the acids of food made full of holes, and although the most beautiful at first, the soonest made disgusting—and after going through all these trials, he determined to try to make Poreelain Teeth. Mr Plantou a French Gentleman had succeeded in making very handsome Poreelain Teeth and obligingly offered to make him a set, yet the teeth which he made for him did not answer his expectations, and believing he would be able to make them to suit himself better, he more resolutely determined to prosecute his enquiries further, and after reading on the art manufacturing Poreelain and other Potteries, he called on Mr Abraham Millar who carried on a large Pottery in Phila, and to his unspeakable satisfaction he found that Mr Millar had made many experiments in making of Porcelain, and was so very obliging as to aid him in this important art, and shewed him the assays which he had made and also gave the materials he had made use of, also the kind offer to fire any teeth he might want with this very encouraging information and aid he diligently set to work, first to make them with holes in order to rivet them to the perpendicular plates where he had before riveted the teeth made of animal substances, and although in the

method they answered tolerably well, yet by the constant use in mastication those rivets were loosened and required to be riveted occasionally, on which account he now thought that he must get Platina to be put into the composition before firing them, Platina being the only metal which will not be destroyed by the heat necessary to make good Porcelain. The giving a glazing of a natural colour of handsome teeth was a difficulty with him for a long time, and it is stated that the Chinese glaze their porcelain with spair, which in England they could not accomplish in their attempts at making Porcelain. The experiments he made was numerous, and it was nearly two years before he was satisfied with his labours in this line with the obliging aid of his friend Miller. At first the constructing a furnace gave much trouble but Mr Millar supplied him with one of his manufactory, which has answered perfectly well before he got a furnace from Mr Millar, making an assay to fire teeth in a furnace he had constructed in the chimney and not being able to gain a sufficient heat to vitrify the teeth with charred coal he put into the furnace a small quantity of Lehigh Coal, and it increased the heat so much that the Teeth appeared to be fully glazed, and if he had then lowered the heat, the success would have been perfect, but attending another business the heat most probably increased and finally melted the black-lead muffle and teeth all together in one mass although this was a serious loss, yet it was satisfactory to know the powerful heat which the Lehigh coal will give."

The assertion that Charles W Peale was the first in America to make porcelain teeth which achieved any degree of perfection, seems to have been inspired by a remark his son, Rembrandt, made immediately following the first annual commencement of the *Philadelphia College of Dental Surgery*.⁷ He said "that his father had, after many experiments, succeeded in making a very good imitation of the natural teeth, some of which he wore in his own mouth, not only making the teeth but mounting them." From the last remark it cannot be denied that he did make artificial dentures, but there is nothing to indicate that he engaged in this field as a dentist. It is more than likely, when painting portraits, that he did this only to restore a more natural appearance to the face, as in the case of Washington. This will be considered in the following chapters, page 318. Charles W Peale died in his eighty-sixth year, on February 22, 1827.⁸

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CHAPTER XVI

GEORGE WASHINGTON

HIS NEED FOR MEDICAL AND DENTAL CARE

SINCE the death of George Washington, more than one hundred and forty-eight years have elapsed, and it would seem that by this time all of the records of his life should have been assembled, and that nothing new or of any value could now be written regarding this versatile American. It is our intent to present a side of this great man which up to the present time has been neglected, briefly call to attention some interesting points regarding his health, and especially to his defective teeth which often caused Washington considerable trouble and undoubtedly were the basis of many of his illnesses.

Washington knew intimately the best physicians of his generation and the more prominent dentists of that period as well. As he acquired ideas of his own relating to the cause and cure of disease, he had definite ideas of what then constituted dentistry and what should be done under certain circumstances.

I Washington's Illnesses

In his private papers, as well as in his diaries, we find many references to his various illnesses. The first was in 1751 when he was "strongly attacked by small-pox" contracted in the Barbadoes, whither he had sailed as a nurse and companion to his brother Lawrence, who was seeking a cure for pulmonary tuberculosis. He was confined for a month to the house. Just to what extent his face was scarred by this disease is not known, but it could not have been very great, for it escaped comment by most of those who later described his appearance. Washington always exhibited a most energetic attitude toward the repeated visit of this scourge upon his plantation and among his soldiers.

Blanton wrote as follows ¹

"His Revolutionary correspondence with Congress, with the governors of the several states, and with his own subordinates, is full of very definite ideas concerning communicability, the need for isolation hospitals and the amazing success of inoculation. The prevention

of smallpox in the Continental Army he assumed with the directness of one confident whereof he spoke 'I have been particularly attentive to the least symptom of smallpox,' he wrote, and at another time 'I have therefore determined not only to inoculate the troops now here but shall order Dr Shippen to inoculate the recruits as fast as they come to Philadelphia' He gave over the winter spent at Morristown to a general inoculation of the whole army How different was the attitude of General John Thomas, who opposed inoculation, saw smallpox ravage his command and died of it himself Other opposition was closer at hand He had to keep the fact of Jacky Custis's inoculation from the anxious Martha until it was safely over, and he almost despaired of ever getting her to undergo the ordeal, declaring 'She talks of taking the smallpox but I doubt her resolution' The deed was finally accomplished by Dr John Morgan "

Washington considered the procedure a very simple one, claiming "The whole art lies in keeping the Patient rather low in diet, and cool, especially at the period of the eruptive fever and my own People (not less I suppose than between two and three hundred), getting happily through it by following these directions, is no Inconsiderable proof of it" He berated the Virginia Assembly in no uncertain terms "Surely that Impolitic Act, restraining Inoculation in Virginia, can never be continued if I was a Member of that Assembly, I would rather move for a Law to compel the Masters of Families to inoculate every child born within a certain limited time under Severe Penalties"² The influence of Washington in the prevention of smallpox in America was probably as great as that of Cotton Mather, Benjamin Franklin or Thomas Jefferson

His second great illness, in 1752, "was a 'violent plurise' which reduced him very low"³ In 1754, in Fredericksburg, he consulted Dr Halkerston His next serious illness was in June of 1755, while on the march with General Braddock Here he was suddenly beset with "violent fevers and pains" in his head, and had to be left on the road He fretted for nine days and then wrote⁴

"I was relieved by the General's absolutely ordering the physicians to give me Dr James's powders (one of the most excellent medicines in the world), for it gave me immediate ease, and removed my fevers and other complaints in four days time"

On the 9th of July, Braddock suffered his great defeat Of that day Washington wrote, "I attended him on horseback, very weak and low"

On another occasion (July 18, 1755) when George Washington wrote to his mother, relating the death of General Braddock, he recounted how he luckily escaped, and mentioned that he was the only person left to distribute the General's orders, which he was scarcely able to do, as he had only half recovered from a violent illness that confined him to bed and "waggon" for about ten days "I am still in a weak and feeble condition I fear, I shall not be able to stir till towards September"⁵

Two years later this report of his health was forwarded to the Governor of Virginia "For upwards of three Months past Colo Washington has labom'd under a Bloody Flux, about a week ago his Disorder greatly increas'd attended with bad Fevers the day before yesterday he was seiz'd with Stitches & violent Pleuretick Pains upon which the Doct'r Bled him and yesterday he twice repeated the same operation"⁶ Four months later Washington wrote from Mount Vernon, "I have never been able to return to my command my disorder at times returning obstinately upon me, in spite of the efforts of all the sons of Aesculapius

At certain periods I have been reduced to great extremity, and have now too much reason to apprehend an approaching decay" From this slough of despond he was rescued by a visit to Williamsburg and the excellent services of Dr John Amson of that city On March 18, 1768, three days after his arrival he acknowledged that he "was in a fair way of regaining" his health, and in December of the same year he arrived at Winchester from the capture of Fort Duquesne again "very much indisposed," so sick in fact, that he was not sure of reaching his destination in Williamsburg

The continuous strain and hard work proved too much for Washington, and he was seized with so violent an attack of dysentery that he was forced to retire from the Army and hasten to Mount Vernon It was April before he was able to return to his command He wrote "My constitution is certainly greatly impaired, and nothing can retrieve it, but the greatest care and more circumspect conduct"

Again in 1761 he had another physical breakdown, this time from a disease common in that section of the country and known in Virginia as the "river fever" and in other places as "break-bone fever" He suffered from fever and pains which lasted for three or four months We today recognize the ailment as *dengue*, which was treated by quinine He wrote on October 20 that the attack had been so violent, but that he would "soon be restored I hope to perfect health again I have in appearance been very near my last gasp I once thought the grim king would certainly master my utmost efforts thank God, I have now got the better of the disorder"⁷ He was only twenty-nine years old, and four serious illnesses had already threatened his life

All went well until 1768 On March 3 he recorded in his diary "Return'd home much disordered by a Lax, Gripeing and violent straining This continued for a week or more, Dr Rumney making repeated calls" In September of the same year Washington was again under the care of Dr Rumney, and in December, consulted Dr William Pastour His later illnesses will be considered in their proper chronological order

The principal drugs prescribed at this period which are recorded in Washington's account books, were quantities of mustard, bark, sulphur, antimony, camphor, glaubeis salts, rhubarb, cream of tartar and

calomel Judging from the old case books of that day, bleeding, blistering and drastic purging with heavy doses of calomel constituted the principal routine of medical practice Medication was heroic, both in the character of the remedies employed and in dosage Calomel was administered in such doses as ten to forty grains, and was not considered effective until carried to complete mercurialization Washington had an abiding faith in the virtues of quinine Writing to his secretary, Tobias Lear, in August, 1798, he cautioned "If you have missed the ague, care and Bark is necessary to prevent a relapse" Not many days passed before he reported to his nephew Bushrod that Dr Craik had "to dose me all night on Thursday with Bark"⁸ And Dr Craik gave it in large doses and frequently To two of Washington's nephews he administered thirteen ounces in the course of a year Bark was a popular remedy on Washington's plantations, as frequent entries in his account books show

With such extreme medication with mercury, there is little wonder that individuals could not escape dental disturbances, and that the early loss of teeth was one of the results Washington was no exception, and having defective teeth, was obliged, in his youth, to patronize dentists

Rules of Civility

In his early youth, Washington made it a practice to enter in his "copying-books" many of which are still preserved, innumerable entries that today prove invaluable in trying to understand his later life In the exercise book containing business forms, etc., are entered the well-known "Rules of Civility and Decent Behavior in Company and Conversation"^{9 12} According to George Simpson Eddy, they are thought to have been published by Benjamin Franklin in 1730, and some ten years later copied by Washington from this work There are some 110 rules, many of which will be of interest to us in this presentation of Washington's care of his teeth and health The fifth rule "If you cough, Sneeze, Sigh, or Yawn, do it not Loud, but Privately, and Speak not in your Yawning, but put your handkerchief or Hand before your face and turn aside"—seems to indicate the welfare of others, and an understanding of modern hygiene

The fifteenth rule "Keep your Nails clean and Short, Also your Hands and Teeth Clean, yet without Shewing any great Concern for them"—His purchases of tooth brushes and dentifrices for himself and family, amply illustrate that he valued this advice

The thirty-eighth rule "In visiting the Sick, do not Presently Play the Physician if you be not knowing therein"—The one hundredth rule "Cleanse not your teeth with the Table Cloth, Napkin, Fork or Knife, but if others do it let it be done wt a Pick Tooth"—While the next rule in sequence states "Rinse not your Mouth in the Presence of Others"

Center 67 ⁵⁰			
1772			
March	By a new ad from the Boston Tea Party	3	184
	By a new ad from the Boston Tea Party		9 3
	By a new ad from the Boston Tea Party		2
	By a new ad from the Boston Tea Party	48	15
	By a new ad from the Boston Tea Party		1 0 0
	By a new ad from the Boston Tea Party	48	5
	By a new ad from the Boston Tea Party		4
	By a new ad from the Boston Tea Party		3 3
	By a new ad from the Boston Tea Party	20	1 10
	By a new ad from the Boston Tea Party	18	6 10
	By a new ad from the Boston Tea Party		2
	By a new ad from the Boston Tea Party		3 9
	By a new ad from the Boston Tea Party		7 6
	By a new ad from the Boston Tea Party		1 17 6
	By a new ad from the Boston Tea Party		3 9
	By a new ad from the Boston Tea Party	12	5
	By a new ad from the Boston Tea Party		2 6
	By a new ad from the Boston Tea Party		5
	By a new ad from the Boston Tea Party		3
	By a new ad from the Boston Tea Party	48	6
	By a new ad from the Boston Tea Party		5
	By a new ad from the Boston Tea Party		5
	By a new ad from the Boston Tea Party		1 15
	By a new ad from the Boston Tea Party		5
April	By a new ad from the Boston Tea Party	48	6 10
	By a new ad from the Boston Tea Party		10
	By a new ad from the Boston Tea Party		1
	By a new ad from the Boston Tea Party	48	5 0 0
	By a new ad from the Boston Tea Party		7 6
	By a new ad from the Boston Tea Party		1 7 6
	By a new ad from the Boston Tea Party		2 15 3
	By a new ad from the Boston Tea Party		1 0 0
	By a new ad from the Boston Tea Party	30	5 0
	By a new ad from the Boston Tea Party	6	3
	By a new ad from the Boston Tea Party	49	2 6
	By a new ad from the Boston Tea Party		2 0 0
	By a new ad from the Boston Tea Party		6
	By a new ad from the Boston Tea Party		5
	By a new ad from the Boston Tea Party	48	6 5
	By a new ad from the Boston Tea Party		14 11
	By a new ad from the Boston Tea Party		8 6
	By a new ad from the Boston Tea Party		14
	By a new ad from the Boston Tea Party		3
	By a new ad from the Boston Tea Party		1 5
	By a new ad from the Boston Tea Party		2
	By a new ad from the Boston Tea Party		7 7 6
	By a new ad from the Boston Tea Party		16 3
	By a new ad from the Boston Tea Party		15
	By a new ad from the Boston Tea Party		11 0 0
	By a new ad from the Boston Tea Party		276 10 4

Fig 112 —Page from Washington's Ledger A of March and April, 1772, crediting Wm Baker, Surgeon Dentist (Reproduced by courtesy of the Library of Congress)

Early Dental Difficulties

Washington's teeth were troublesome, and as early as 1756, when he was but 22 years of age, and possibly earlier, one of them was extracted "From this time toothache, usually followed by the extraction of the guilty member, became almost a yearly recurrence" as is shown in his account books, while his ledger contains many items typified by "To Dr Watson, drawing a tooth 5/-"¹³ He was a frequent buyer of tooth brushes, tooth powder and washes

During the period of Braddock's engagement, we find the first indication of dental trouble, as a result of the extreme medication he received, his frontier fare and the nervous tension under which he worked

He was, as his ledger accounts show, "unusually careful of his teeth, the purchases of 'sponge' tooth brushes by the dozen for himself and family, of tincture of myrrh and other dentifrices and bills, for dental work are too numerous to admit of any other conclusions"¹⁴ The first such entry in Ledger A is that dated November 26, 1755, when he employed as a dentist a William Baker It seems, according to a letter from Fitzpatrick, that this account of £14 9 was paid by Washington as a hat bill, a peculiar method he used of squaring Baker's bill against him¹⁵ Apparently his first tooth was extracted in April of 1756, and in 1759, George Mercer recorded "his mouth is large and generally firmly closed, but which from time to time discloses some defective teeth,"¹⁶ while John Hunter, a merchant of London, in 1785, in writing of Washington, observed "His nose inclines to the aquiline, his mouth is small, his teeth are yet good and his cheeks indicate perfect health"¹⁷ From that date, one by one he lost the others, until in 1789, there remained only the lower right first molar, which Greenwood removed that year, and the lower left second premolar The latter was not extracted until the year 1796

From the various dentures worn by Washington, we have attempted to reconstruct his upper and lower dental arches¹⁸ (Fig 113) The lower arch, from the 1789 Greenwood set, shows the left premolar in its proper place, as that of the President's last tooth The "Peale's" lower also fits exactly on this model, further confirming it to have been made for Washington Other facts in confirmation will be considered later The upper arch was made from the upper denture now in the Baltimore College Both models show that at that date, the alveolar processes had already been considerably absorbed, and that little remained to support an artificial denture This would indicate that most of Washington's teeth must have been extracted many years prior to 1789, it would even be a difficult task today to construct a satisfactory upper denture



Fig 113 —Reconstructed upper and lower dental arches of Washington The lower with a left premolar tooth in place to show Washington's remaining tooth These models have enabled us to definitely discard several so called sets of Washington's dentures (Author's collection)

According to J W Toner (1825-1896), *Excerpts from Account Book of Washington* published in the *Pennsylvania Magazine* V 16, 1892, the following are the names of some of his dentists "Drs Fendall, Spencer, Baker and John Greenwood."¹⁹ To these should now be added Jean Pierre Le Mayeur, James Gardette, Charles Willson Peale, the artist, and Whitlock Nowhere can we find a substantial record to show that Washington had the service of, or a *set of teeth*, made by Paul Revere or John Baker, a fact so often related by historians

The next period of great difficulty by Washington, as far as his teeth were concerned, was between the years 1772 and 1775, just prior to the American Revolution Here again his Ledgers "A" and "B" report the following

		£	S
Baker, Mr — Surgeon Dentist —	April 6, 1772	4	
Baker, Dr — a dentist	March 11, 1773	1	6
Baker, Dr — Surgeon Dentist —	Oct 15, 1773	5	
Baker, Dr Paid	Oct 27, 1773	3	
Toothbrushes-Paid	Oct 26, 1773		5
Baker, Dr — Dentifrices	Nov 26, 1773	1	
Baker, Dr — Cash for	June 14, 1774	15	
Baker, Dr — Cash Paid	Aug 1, 1774	1	4

There are only a few entries in Washington's *Diaries* that relate directly to dental services In fact nowhere is there a mention of a visit by a dentist, as such, throughout these recorded events, and only by referring to Washington's account books, (even his Ledgers were so arranged as to eliminate in most cases such cash payments) his private correspondence, etc , could we connect the diary entry and a professional visit^{20 37}

The meiest hint for the reason for such elimination by Washington is to be found in the letter he wrote to his aide, Lieutenant-Colonel William Stephen Smith, from Newburg on May 15, 1783 (This letter is given in full under Le Mayeur) In it he stated, while making inquiry regarding a certain dentist "I would not wish that this matter be made a parade of, and therefore give you the trouble of arranging it"

One such entry in his diary is that dated "1773,—Oct 13 (V 2 p 127) Mr Beal went away after breakfast I continued home all day In the afternoon Mr Willis and my Brother Charles came, as also Mr Baker, Surgeon Dentist" The reason Washington remained "home all day" is no doubt explained in the account book entry of October 15, "paid to Mr Baker, £5" On several occasions where he made such an entry as "home all day" we find there was a cash entry for dental services

Charles Willson Peale, in the summer of 1776, painted for John Hancock, a half length portrait of Washington, which clearly shows a blemish on the left cheek, said to be the result of an abscessed tooth This same scar also appears in the Williams Masonic painting of Washington If the artist's interpretation be correct, Washington must have had some remaining teeth or roots in the upper jaw at that date

According to the *Dental Office & Laboratory*, V 1 July 1887, there was a letter, first published in *The Youth's Companion*, to a firm of commission merchants in London It reads "Dear Cary" (Washington wrote to the Senior member of the firm) "Mrs Washington joins me in warm thanks to you for your considerate present of two large stone jars of pickled tripe I must ask you to arrange for four similar jars, in wicker basket casings, packed in outer casks, to be shipped for my account direct from the owners Dental infirmity impels me caring for this necessary item in our domestic commissariat" Unfortunately this letter cannot now be found so that we do not know the exact date Dr John C Fitzpatrick has written me as follows

"I immediately consulted the *Youth's Companion* of February 19, 1885 and February 17, 1887, but neither article contained the excerpts quoted from the 'Dental Office and Laboratory'

"Washington's dental troubles did not prevent him from ordering quantities of Jordan almonds and other candied confections from London prior to the Revolutionary War Of course we cannot assert that these hard substances were for him, they may well have been for Mrs Washington and the Custis children as well as for social entertainment and visitors, but an examination of the lists of the foods purchased for Mount Vernon as well as the accounts of various French officers of the apples, nuts, etc on the table of the Commander in Chief during the war rather justifies the idea that Washington did not confine himself to soft foods until the last part of his life Raw apples are not easy things to bite and chew with troublesome or few teeth"



Fig 114 —George Washington, age 44 Painted by Charles Willson Peale in 1776
On the left cheek may be seen the scar, resulting from an ulcerated tooth Mrs
George S Whiteside collection (Reproduced by courtesy of the *Frick Art Reference
Library*)

On March 29, 1781, Washington sent a letter to a Doctor Baker in Philadelphia. As John was the only one by that name then practicing dentistry in Philadelphia, it was evidently intended for him. At any rate, the letter was intercepted by the British General Clinton and failed to reach Dr. John Baker. It was held for generations by Clinton's family and is now in the possession of the *William L. Clements Library*, in the Clinton collection at Ann Arbor, Michigan, and through the courtesy of Mr. Randolph G. Adams, the Librarian, we are able to republish it. It reads:

"New Windsor, Mar 29th, 1781

A day or two ago I requested Colo. Harrison to apply to you for a pair of Pincers to fasten the wire of my teeth—I hope you furnished him with them—I now wish you would send me one of your scrapers, as my teeth stand in need of cleaning, and I have little prospect of being in Philadelphia soon. It would come very safe by the Post—and in return, the money shall be sent so soon as I have the cost of it—

I am Sir

Yr Very Hble Serv

G. Washington"

In the chapter on John Baker the photostat copy of this letter is reproduced. One can easily see that an alteration in the date has been attempted. The date as given by previous authors, May 29, 1781, is therefore incorrect (Fig. 32, page 85).

Apparently Washington was then using some false teeth which were wired in and held in place by a half hitch around remaining solid teeth. To say that Baker made a denture for Washington would merely be guess-work, as there is no evidence to support this contention in either his ledger or account books. That he sent for *pincers* to tighten the wire about his teeth, as well as *scrapers* to cleanse them, is a revelation of the dental ways and means of his time.

On December 25, 1782, from Newburg, N. Y., in corresponding with his brother, Lund, Washington made the following inquiry³⁸: "In a drawer, in the Locker of my Desk which stands in my study, you will find two small teeth, which I beg of you to wrap up carefully and send inclosed in your next Letter to me."

Was it Washington's idea to use these on a denture then being constructed? Neither in Lund Washington's reply to this letter, nor in the next two or three letters, does he mention the teeth in any way.

Another indication of Washington's care of his few remaining teeth, is shown by Dr. Fitzpatrick in his recent *George Washington Himself*³⁹ on page 429 of which is said: "By 1783 his teeth were definitely going, fighting such a war as the American Revolution was task enough without bothering at the same time with aching teeth, and even the most philosophic statesman may be pardoned for occasional show of irasci-

bility under such circumstances. It may not be easy to appreciate much of the hardship suffered by Washington during the Revolutionary War, but there is no difficulty in understanding toothache. The strain of finding pay for an army where money was all but unobtainable, of keeping that army from mutiny, of arranging for the release of thousands of prisoners of war, of arranging for the evacuation of a large city and endeavoring at the same time to keep the British from carrying off American property, becomes more vivid when we know that toothache was gnawing at Washington's nerves through it all."

Though preliminary articles of peace were signed on November 30, 1782, there was no armistice, and Washington had to pass one more winter with his army on the Hudson. A definite treaty of peace was signed on September 3, 1783, and the British evacuated New York on November 25th. On December 23, he returned his commission to Congress, and retired once more into private life at Mount Vernon.

During this period Washington was badly in need of dental relief, for on June 17, 1783, again from Newburg, he wrote the following letter to Major Andrew Billings:^{40 41}

"My Billings, at Poughkeepsy

Newburg, June 17, 1783

Sir By some mistake or other the Horse was not sent for yesterday—the Dragoon comes up for him now, and those small tools which you conceived might be useful to me—among which I pray you to send me a small file or two, one of which to be very thin, so much so as to pass between the Teeth if occasion should require it—another one round

Have you been able to satisfy yourself of the practicability and means of colouring Sealing Wax? If so can you bring the stick. I now send you to (sic) the complexion which is wanted?

Mrs Washington sends you a lock of both our hair (Inclosed)

I am, with Much regard, Sir
Yr very Humble Sert,
Go Washington "

This letter, first published in the *Historical Magazine* V III p 243, of August, 1859,⁴² was written two months after the cessation of hostilities. It conclusively proves that at that time the attention of Washington was again anxiously directed towards the preservation of his teeth, a few years subsequent, however, these had almost entirely disappeared, and the question remains whether, during the interim, their deficiency was supplied by any artificial means.

Major Billings was a watch maker, and having a knowledge of practical science, and possessing remarkable mechanical genius, made with his own hands the instruments Washington requested. Washington's inquiry as to a "means of colouring sealing wax" is significant, and leads us to believe that he was then wearing a partial substitute for some

of his teeth In a later letter he again referred to this wax and how it should be applied to one of his dentures⁴³

Washington and Jean Pierre Le Mayeur

Prior to the request for instruments from Major Billings, Washington was quietly making inquiries concerning a dentist in New York "of whose skill much has been said Having some teeth which give me a great deal of pain"—then he crossed out the word "pain" and substituted "are very troublesome to me at times, and of which I wish to be eased, provided I could substitute others, (not by transplantation, for of this I have no Idea, even with young people, and sure I am, it cannot succeed with old) and gums which might be relieved by a man of skill I would thank you for making a private investigation of this man's character—knowledge in his profession, and if you find then such as I can derive any benefit from, encourage him to come out At any rate, if he is really skillful, I should be glad to see him with his apparatus"⁴⁴ Washington then cautioned Lt Col Smith "that this matter should not be made a parade of "

This young French dentist, "one who many years prior to September 1781, carried on his profession, before coming to New York, which is that of a Surgeon with great credit in London," was Jean Pierre Le Mayeur Le Mayeur's close association with Washington has already been described in a chapter relating to him, therefore it will not be necessary to again consider this relationship

The following significant entries are found in Washington's Diaries

- "1785 — Thur 15 (Sept) Doctr L'Moyer came in before dinner"
(v 2 p 413)
- "Mond 19 Doctr La Moyer left this for Alexandria
in my carriage after breakfast" (p 414)
- "Monday 26 Went up to Alexandria — Doctr La
Moyer, etc accompanied me"
- "Dec 2 Friday Colo & Mrs McCarty came here to Din-
ner, as did Colonels Fitzgerald and Gil-
pin & Mr Chas Lee & Doctr Baker"
- "1786 — Dec 14 Doctr La Moyer came in just as we
were going to dinner" (v 3 p 145)
- "1787 — Feb Monday 5th—After breakfast Doctr La Moyer went
up to Alexandria" (p 166)
- "Friday 9th Doctr La Moyer left this (after break-
fast) but meeting with some accident "
- "Sat 10 After breakfast Doctr La Moyer again
set out and soon Doctr Craik went
away" (p 167)

There are other entries that relate to husbandry which we have previously discussed, under the date of October 27 The last entry relat-

ing to Le Mayeur is that of November 20 "Found Doctr La Moyeur here" (p 447)

*The Significance of Washington's Later Illnesses in the
Light of our Present Day Dental Knowledge*

Further record of Washington's health is not again considered until 1786 In the fall of that year he was once more taken ill, apparently suffering from malaria, for his diary of August 31 reads

"Seized with an igne before six Ocloock this morning after having laboured under a fever all night Sent for Doctr Craik, who arrived just as we were setting down to dinner, who, when he thought my fever sufficiently abated, gave me a erthartick and directed the Bark to be applied in the morning" September 1 "Took 8 doses of the red bark today"

Dr Craik continued to come and administer bark until September 14 Again in March and April of 1787 Washington wrote

"A rheumatic complaint which has followed me more than six months, is frequently so bad that it is sometimes with difficulty I can raise my hand to my head, or turn myself in bed"

Indeed for some days he was compelled to carry his arm in a sling⁴⁵ William E Woodward, in his *George Washington, the Image and the Man* 1926, wonders if Washington's bad teeth did not have much to do with his ill health We have just shown that during December and February, there are, in Washington's diaries, four recorded visits by Le Mayeur Had the latter had the modern *Roentgen Ray*, better known today as the *X-Ray*, and understood its use, there is little doubt that he would have discovered among the few remaining teeth signs of infection, and more likely fragments of roots would have been found embedded in the gums One might venture to make the statement that the rheumatic condition described, and the inability to raise the arm may have been the result of a dental focal infection

In May 1787, Washington set out for Philadelphia for the Constitutional Convention, and on the first day he was seized with a violent headache and sick stomach, but quickly recovered Two years later, while touring New England, he was stricken with influenza

Washington had hardly taken up his duties as President upon his return to New York, when he became so ill with an infection, that his life was despaired of, and the street where he lived was roped off to prevent traffic noise from disturbing him From McVickar's description of this illness it was a "case of anthrax," though it is generally stated as a carbuncle of the thigh, which Dr Samuel Bard incised Washington's condition was so threatening that Dr Bard refused to leave his side for days, and the elder Bard was called in consultation Again

February - 1795
 20. Cash paid M^r John
 Greenwood of the City
 of New York in full
 for his services as
 Dentist to the President
 Date - viz 60 Dollars
 - sent by Post - in B
 Notes - - - - -
 March - - - - -
 To Cash rec^d on M^r John
 Walker - 40 dollars - for
 principal & 20% debt
 due from his father Doct^r
 John Walker to me -
 April
 3 To Cash rec^d as interest on
 my public securities up
 to the first of the inst^t
 viz 213 doll^{rs} and c^t

Fig 115 —Page of Washington's account book of February 20, 1795 (Reproduced by courtesy of the John Carter Brown Library)

Washington and John Greenwood (1789-1799)

Washington, having been elected President of the United States, left his home at Mount Vernon, reaching New York on the 23rd of April 1789, and was inaugurated on April 30. The necessity of remedying in some way the loss of his teeth must have naturally suggested itself to the mind of the first President at an early period, a loss impairing especially both fluency and clearness of speech, and which, detracting from

the dignity of his personal appearance, would scarcely escape observation in the frequent and fashionable levees at which, as chief magistrate of the nation, his presence would soon be required

Washington himself realized the effect of varying moods upon his countenance, as he touched upon this subject in letters written to friends, which we will refer to again in the next chapter

At this time probably the ablest dental practitioner in the city of New York was John Greenwood, who we have already noted was located at the south corner of William and Beckman Streets. Washington soon after his arrival employed the services of Mr. Greenwood, the latter "constructing" for him a complete set of ivory dentures for the upper and lower jaws. The *bar*, that will be referred to, took the place of what is now known as a *plate*, and was made of hippopotamus ivory, carved to an approximate adaptation to the gum, and when in use was thinly coated with flesh-tinted sealing wax, evidently according to the formula requested of Major Billings. Into the ivory *bar* of the lower, eight human teeth which extended entirely through the base were inserted and retained by pivots of gold pins screwed horizontally through the ivory, from front to back, and then through the roots of the teeth. That portion of the roots extending beyond the ivory, was then cut even with the bottom ridge. Greenwood made an attempt, in this artificial denture, to restore the shape of the alveolar ridge.⁵²

A better idea of the denture may be obtained from the three photographs which are shown in Fig. 116. Two of the teeth (the laterals) have broken off at the gum margin, the right apparently, after the set was returned to Greenwood, for the left is still partially filled with sealing wax and tartar. This tooth is now preserved in a specially designed box in *Fraunces Tavern* in New York City, with the following inscription: "Fragment of tooth broken from plate worn by General George Washington. Made and repaired by Dr. John Greenwood, 1766-1819, dentist of Washington. Presented by his son, Isaac J. Greenwood, 142 West 14th Street to John Gilhert Brown. Given by him to his son William H. Brown."

The right first molar on the denture was apparently Washington's own tooth, for on the under surface of the ivory there appears the following inscription, engraved by John Greenwood: "the tooth." This is confirmed in the manuscript by Isaac John Greenwood, in which he wrote⁵³ "having probably been one taken from the President's mouth and inserted in the false set."

On the left is seen the large aperture through which passed the last natural tooth which remained in Washington's head, and John Greenwood was more particular to obtain the data as to this tooth being one of Washington's. On various parts of the ivory surface the following

salivary calculus, while they were worn, are now perfectly distinct. Although the art of the dentist has made rapid advances since the time when these teeth were inserted, their execution is superior to that of many manufactured at the present day. They were secured in the mouth by means of spiral springs. The other half of the upper, and the whole of the lower set, are in the possession of Dr Isaac J[ohn] Greenwood."

Regarding Harris' statement that the inscription was placed thereon prior to Washington using them and that these became filled with salivary calculus, we believe is erroneous. An examination of this piece can easily disprove that conclusion. Greenwood certainly could not have inscribed it until after it was returned to him, for all the engraving is still perfectly clear and legible. As "to the half of the upper set" Harris mentions, it is possible that it may be instead a lower that is now in the *London Hospital Medical College*.

The two dentures were united at their extremities by fine coiled spiral springs of gold wire, for at that time neither the principle of complete support by atmospheric pressure nor that by springs was well understood, and the support of an artificial set in the mouth depended somewhat on training of the facial muscles. (See 1789 set.) Consequently their movement was similar to that of a hinge, though at the same time there was a strong lateral action, or outward pressure, exerted especially upon the mandible, tending to thrust it forward in the mouth. Altogether the apparatus was an uncouth and awkward affair for the mouth, but in point of workmanship it will bear close scrutiny even in the present advanced stages of the profession. This awkwardness was evident about the upper lip, as seen in Stuart's portrait of Washington, painted about 1796, while Washington wore the artificial set of teeth. Being at a distance from his dentist, the President himself modified some of the dentures, as he wrote in his letters, in order to obtain comfort and to correct if possible the objectionable expression. Although Washington was loath to part with the last of his teeth, yet he wished to ensure the denture remaining in his mouth, and it became necessary to carve an aperture in the ivory so that the left remaining premolar tooth might pass through. Owing to the outward pressure this must have caused considerable irritation to the surrounding gums, and, at times, must have been extremely painful. The bulk or thickness of the "bar," together with the action of the muscles in keeping it in place, gave a puffed or "pouting" expression to the face.

Congress was not in session from September 29, 1789, to January 1, 1790, and on October 15, 1789, the President left New York for a tour through the Eastern States. According to Mr C. B. Richardson,⁷ the editor of the *Historical Magazine*, just before Washington reached Newport, his carriage broke down, and due to the violent shock which ensued his upper set of false teeth was dislodged and fractured. This set was

immediately sent back to New York for repair, and Washington continued without them. This statement of Mr. Richardson's seems erroneous, as that portion of Washington's journal which includes his "Eastern Tour" fails to mention such an accident.

There is another version found in the Greenwood manuscript,⁵⁸ that seems more logical, and is confirmed in Washington's *Diary*. It is that, early in the autumn of 1790, after the second adjournment of Congress, Washington and his family left New York on a visit to Mount Vernon, traveling in the coach which the President had in that year imported from England. "Dunn, his driver, was apparently incompetent to manage the six horses with which the coach was then drawn, and almost immediately after leaving Elizabethtown Point, he allowed the coach to run into a gully, and in this way the injury occurred." He secured another coachman and proceeded to Philadelphia, where the coach and harness were left for repairs.

The artificial set, made by Greenwood in 1789, was used by Washington until 1797, during which period most of the prominent portraits of the President were executed. This will be discussed in detail in another chapter.

During the month of January, 1790, Washington's last tooth was again beginning to give him trouble, and in his diary under date of Sunday, 17, he wrote ⁵⁹ "At home all day—not well." Monday 18 "Still indisposed with an aching tooth, and swelled and inflamed gums." There is little wonder that with the ill-fitting plate, seen in the palatal photograph, and the consequent irritation against the "sinister bicuspid" as it was then designated, inflammation could not be avoided. Washington, however, was loath to part with his tooth, and gave instructions to save it as long as possible.

In January of 1791, Washington then in Philadelphia, sent the old ones on for repairs and evidently ordered another partial set, for on February 6 they were delivered by Greenwood, with a letter which we have been unable to discover.⁶⁰ Washington acknowledged it from Philadelphia on the 16th, stating "Sir Your letter of the 6th and the box which accompanied it came safe to hand. The contents of the latter were perfectly agreeable to me, and will, I am persuaded, answer the end proposed very well. Enclosed I send you Twenty dollars in payment for them and the repairs of the old ones and am

"Sir

"Yr Very Humble Servt

G Washington

"P S That I may be certain that this letter and its contents has got safe to hand, be so good as to say so in a line to

G W"

Greenwood's reply cannot be found

Half of another set is now in the possession of the *London Hospital Medical College*, together with the letter from Washington, dated February 20, 1795. According to the original Greenwood manuscript,⁶¹ it was presented by Dr Isaac John Greenwood, contrary to the will of his father, John, to Chapin A. Harris in November of 1825, and upon his death in 1860 it came into the possession of Harris' widow, who had it in Baltimore on January 3, 1863. This information was obtained from Isaac J. Greenwood's statement that "having written to the widow of Prof Harris for a copy of this Washington letter, I received the same under date of Baltimore Jan 3, 1863, 51 N Charles St."

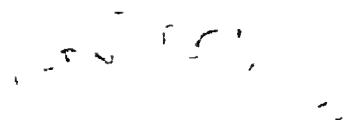
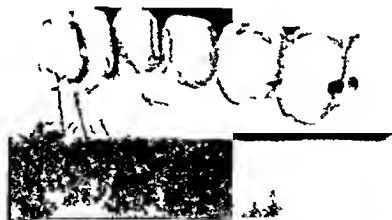


Fig. 117—Half of a lower denture made by John Greenwood for Washington in 1791 and now in the *London Hospital Medical College*. (Reproduced here by courtesy of the *London Hospital Medical College*.)

was a lower In order to settle this question there has been constructed the following chart, which includes the outlines of the upper and lower Baltimore set and the lower of the 1789 Greenwood denture, these are taken directly from the dentures or the plaster cast of them, also from the partial one now in London A study of these can leave little doubt that it was a lower

On September 4, 1791, Washington again wrote to Greenwood, but this letter cannot be found Washington had some definite ideas as to how his dentures were to be constructed and expressed himself freely in this respect His instructions were explicit and clear, and some of these sets were undoubtedly made by "correspondence school" methods That Greenwood visited Washington in Philadelphia to see for himself whether his "apparatus" was performing its service, may be seen by the following note in an article that appeared in *Scribners Monthly* for July, 1876 "A gentleman who died years ago told Mr Isaac P Davis, rope maker of Boston, that just previous to Washington's sitting for Stuart to paint his portrait, he met, in traveling in a stage-coach, a dentist named Greenwood, who was on his way to insert a set of false teeth for General Washington" That was in the autumn of 1795, though Greenwood mentioned in the following letter "I shall take a trip to Philadelphia in November" (1791) Greenwood's reply to Washington, dated September 10, 1791, reads as follows

"New York, Sept 10-1791

SIR

I Received yours dated the 4th by the hands of yr John Jays son,—this moment Saturday 12 Ocloek, in Which you Seame to think I have neglected you, or the article Misearried I Received them Safe, but Whas out of Stuff that is I had none Good enuf for the purpose, and so I did not—proceede till I Could Get it, of Which I procured Whith Dificulty, on tuesday And have began it, Which you Will Get Next Week The reason I did not rite and answer to yours I Expected to Get the Stuff and have them done suner I shall Observe all the defitiencee you mention and try to remedy them

PS Si your directions how to remedy or make the next is as plane to me As if present, and I Will Observe them to a title, nevertheless it is difficult to do these things Whithout being on the spot, Which I Shall take a trip to Philadelphia in November, God be willing and I have my helth, then I Can Alter them

from Your Obedient and
Humble Servant
John Greenwood "

From this letter it appears that Greenwood made another complete denture for Washington, and the Ledger "A" entry, dated Sept 10, 1791, further confirms this order which again amounted to \$60-\$70 Apparently Washington missed the set sent on for repairs and was anxious lest they should not arrive before Congress reopened

Washington returned to Mount Vernon from his southern tour on June 13, 1791, and reached Philadelphia July 6. On Sept 4, 1791, he wrote to John Jay at New York, stating that in consequence of the indisposition of his nephew, Major Washington, who had the care of his private business, he would be obliged to leave for Mount Vernon, though he should stay no longer than the middle of October as he must be back before the meeting of Congress. He requested Mr Jay to inform him on all topics during his absence. In a letter to Lafayette of September 10, 1791, he said he would set off the following week for Mount Vernon with Mrs Washington and the children, to enjoy a few weeks of retirement before the meeting of Congress on the last of October. The first session of the 2nd Congress opened on October 24, 1791, and on October 25, Washington delivered his annual message in person, in Congress Hall, corner Sixth & Chestnut St, Philadelphia.

On February 20, 1795, Washington replied to a letter of Greenwood's dated February 17. Apparently during the intervening four years, Washington was free from dental disorders. The letter reads

"Phila 20th Feb 1795

Sir

Your last letter, with accompaniment came safe to my hands on tuesday last

Enclosed you will receive Sixty dollars in Bank Notes of the United States—In addition to which, I pray you to accept my thanks for the ready attention with which you have at all times, paid to my request and that you will believe me to be, with esteem—Sir

Your very Hble Servt—

G Washington "

It seems that the sets of teeth constructed by John Greenwood in 1789 and 1791 were retained in use by Washington until 1795. The lower denture made in 1789 remained in an unaltered state, the others being changed either by Greenwood himself while in Philadelphia, as indicated in the previous letter by Washington (see letter dated Dec 12, 1798) or by someone else in that city. Isaac John Greenwood wrote on p 21 of the manuscript "About this time the natural tooth in the lower jaw, having become loosened gradually, was removed and its place, as we learn from the President's own letters, was supplied by an artificial one, but as there was now no barrier to the outward pressure of the lower jaw, that force was exerted in full upon the under lip, causing it to project. To relieve this fault, much of the ivory gum-work or *bars*, as they were then called, was filed away, which so weakened the apparatus, that it gradually gave way, these alterations were performed probably by some practitioner at Philadelphia." This might account for the discrepancy in the size of the ivory "bars" of the 1789 and 1791 sets as they now exist. The entry in Washington's daily account book under date of Feb 20, 1795, confirms the letter of the same date, and is of

1
 Philadelphia March 27, '59.

Dear Sir

In answer to yours of the 22^d Washington sat to me in the Autumn of 1795 - & at the same time sat to Stuart, having then in his mouth the Teeth made by your Grandfather in 1790 - Not satisfied with this Portrait, Stuart painted another Portrait in the spring of 46, when the General had in his mouth an Ivory Set made by James Gardette, which caused his mouth to be changed. Dr Harris of Baltimore showed me one half of your Grandfather's Set; small & beautifully made, telling me that the other half was in your Father's possession - And I have been told that the expected set, made by Gardette, is in the possession of a Gentleman in Savannah. Respectfully Yours
 Rembrandt Peale

Fig 119—Letter from Rembrandt Peale, in which he mentions "an ivory set made for Washington by James Gardette" in 1796. From the unpublished manuscript entitled *The Portraiture of Washington, etc*

importance as "Cash paid Mr John Greenwood of the City of New York in full for his services as Dentist to the present date—viz 60 Dollars" The amount mentioned usually indicated a full upper and lower set, and shows that Greenwood did make another complete denture

"During the spring of 1796, James Gardette constructed a set for the President" with regard to which the editor of *Custis' Private Memoirs* has the following note ⁶¹ "Washington at the time Stuart painted his portrait (April, 1796) had a set of sea horse (hippopotamus) ivory teeth These, just made, were too large and clumsy, and gave that peculiar appearance of the mouth seen in Stuart's picture He soon rejected them Stuart's mouth is a caricature in a slight degree" This is further confirmed in a letter, which was in the possession of the late Mr J R Greenwood, written by Rembrandt Peale, March 27, 1859 ⁶² A thorough search for Gardette's set has proved unsuccessful

Meanwhile Charles Willson Peale, according to Henry Tuckerman's *Character & Portraits of Washington* 1859, ⁶³ had made another set "The feature usually exaggerated in poor copies, and the least agreeable in the original is the mouth, resulting from the want of support of those muscles consequent on the loss of teeth, a defect which Stuart's vanity attempted to remedy by inserting cotton between the jaw and the lips, and Willson Peale more permanently, but just as ineffectually, sought to relieve by a set of artificial teeth" Though Peale did not state that he made a set of teeth for Washington, he did mention having made full and partial sets

There is in the possession of Mrs Charlotte R Mustard of Baltimore, a set that was handed down from Mrs Martha Washington to her granddaughter, Eliza Custis She, in turn, left them to her daughter's son, Edmund Low Rogers, Mrs Mustard's father There is a tradition that the lower front teeth were Washington's own, but this we doubt, for they fail to match in color and size the lower first right molar on Greenwood's 1789 set, and the left premolar, the last tooth known to be Washington's, in the Greenwood collection

How Washington could have worn these is a mystery, as may be seen by the illustrations, but they must have been in service for many years, as we shall explain later The base of both the upper and lower, instead of being ivory, was of lead alloy With the exception of the lower anterior teeth, those used were from some animal Upon studying the various forms, shapes and sizes of the most common animals then in North America, the most similar seemed to be those of the elk, though Peale mentions that he made use of hog, cow and other animal teeth Washington thus became the first to use such teeth for ornamentation ⁶⁵

Mrs Mustard kindly granted permission to make impressions of the set, as well as to have photographs taken, thus permitting a thorough study of the dentures. The construction of this set is so unique that we believe a detailed description of its construction will prove of interest. After all the teeth of the animal were filed to their desired shape, and the roots cut to the proper length, a small hole was drilled horizontally through each. All were then strung upon a heavy steel wire that had previously been curved to the proper shape of the gums. Wax of some kind, (undoubtedly bees' wax with some hardening material) was then heated and moulded to the desired size and form, and the wire and teeth embedded within it. This wire can plainly be seen in the illustrations of the lower. A slot for the coiled springs was then cut out of the wax. When this stage was completed a core of some material (plaster of Paris and sand, most probably) was placed around the wax. This was then heated, the wax melted and lead then poured in its place. The coiled springs used were of heavy steel, and they are so powerful that at the present time many strands of wire are required to keep the two dentures in the position as shown in the illustrations. The upper and lower weigh a pound and a half each. It is a heavy contrivance and could not be worn with ease, and would be impossible for general use. It is more than likely they were in use only at the time Peale painted Washington, so that the mouth might assume a more natural appearance. Certainly the lower anterior teeth could not stand the strain of ordinary mastication. The lower denture is shaped to fit the alveolar ridge, and rests comfortably on the models of Washington's dental arches, previously described. The upper surface of the upper is flat and smooth.

This set was constructed prior to the loss of Washington's last tooth, as it was made originally with an aperture to permit the placing of the lower over this tooth. Many years later this space was filled in with additional lead and a tooth, carved of ivory, was then inserted, to complete the set.

Whether or not this denture was the one made by Peale,⁶⁶ is a matter of conjecture, but he, being a naturalist and somewhat familiar with the teeth of different types of animals, would have been the logical one to adopt and utilize such teeth. Apparently only the elk had teeth with short small crowns and a marked line at the gingival margin, very much unlike a calf's teeth. Therefore, the elk's teeth could be made to resemble human teeth and were easier to obtain. (See chapter relating to Charles Willson Peale.)

During the fall of 1796, according to Washington's own letter of January 25, 1797, the natural tooth in the lower jaw, having become gradually loosened, was removed by Greenwood, and in its place, as we learn from the President, an artificial one was supplied.

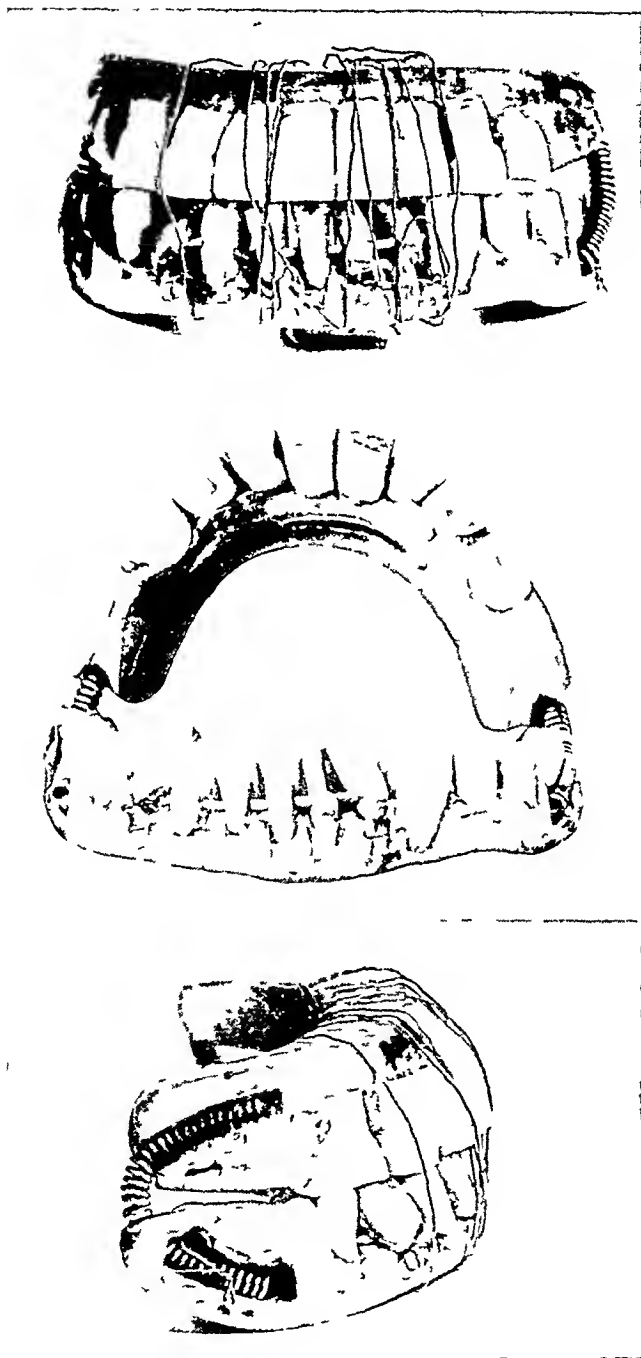


Fig 120 —Denture made of lead for Washington by an unknown *dentist* presumably by Charles Willson Peale, the artist (Property of Charlotte R Mustard of Baltimore, through whose courtesy these pictures are published)

As the result of the experience Washington had with Gardette, Spence, Peale and other dentists in Philadelphia, he evidently preferred Greenwood's services. On February 20, 1797, he again resorted to him for assistance, and informed him that he was wearing another set made by none other than Greenwood.

"Philadelphia, 20 Jan 1797

Dear Sir

I must again resort to you for assistance—The teeth herewith enclosed have by degrees worked loose and, at length, two or three of them have given way altogether. I send them to you to be repaired, if they are susceptible of it, if not, then for the purpose of substituting others—I would thank you for returning them as soon as possible for although I now make use of another sett, they are both uneasy in the mouth and bulge my lips out in such a manner as to make them appear considerably swelled—

You will perceive at the first view, that one cause of these teeth giving way is for want of a proper socket for the root part of them to rest in, as were for the purpose of keeping them firm and in place at bottom, as to preserve them against the effect of the saliva which softens the part that formerly was covered by the gums and afforded them nourishment. Whether this remedy can be applied to the present sett I know not, for nothing must be done to them, which will in the least degree force the lips out more than they now do, as it does this too much already, but if both upper and lower teeth were to incline inwards more, it would shew the shape of the mouth better, and not be the worse in any other respect—

Send with the teeth, springs about a foot in length, but not cut, and about double that length of a tough gold wire, of the size you see with the teeth, for fastening the springs—Accompany the whole with your account, and the amount will be immediately sent by Post in a bank note

I am Sir

Your very Hble Servant
George Washington"

Concerning Washington's endeavor to repair the gold springs, requested in the last paragraph, "springs about a foot in length," J R Fitzpatrick on p 430 (*George Washington Himself*) wrote "Despite his large hands, his fingers were skillful, for he made the gold springs which held his teeth-plate in position, not only made the springs, but adjusted them to the plates, which was a delicate mechanical operation"

Greenwood's reply of January 23, 1797, cannot be located, but his bill for \$60 was received by Washington and entered in the latter's account book. This letter undoubtedly made some inquiry as to the disposition of Washington's last tooth for Washington replied

"Philadelphia 25th Jan 1797

Sir,

Your letter of the 23d inst came to me this morning—
The tooth that formerly went into the hole (that is now filled

up) has been out many months, which was the cause for putting in the artificial one

If it was not sent with the rest, I know not what has become of it,—nor is it material, is the one which supplied its place answers the purpose very well

Not knowing whether you meant to make a new set, or to repair the old, I must give caution you against adding anything that will widen the bits, or the sides, or extend them in front at bottom—They are otherwise too wide, and too projecting for the parts they rest up on, which causes both upper and under lip to bulge out, as if swelled—By filing these parts away (to remedy that evil) it has been one cause of the teeth going away, having been weakened thereby—I am Sir

Yr very Humble Ser

G Washington”

Certain then of the identity of the tooth, Greenwood enclosed it in a case of his own making, and wrote on the back of the above letter the following

“New York, February 20th, 1797

The Within letter was wrote by General Washington in Answer to one I had sent him in request to know if the tooth which I have now in possession was in fact his own natural tooth which was the only one that remained in his head When I fixed him a Whole Complete set And I am Well satisfied it is and have kept it in remembrance of him and as an Relic of so Great a Man any one Who doubts its being his tooth by taking it out of the socket of Which I Made for to keep it in they will find that the tooth has been Worne smaller in the root by the Artificial ones in such a manner as to Force it out of the Gums I write this on the back of this letter Expecting some person might Wish to be satisfied of the Truth of My being in possession of such a Tooth

JOHN GREENWOOD Dentist ”

In March, 1814, the tooth was set by Mr Edward Rockwell, jeweler of New York, in an oval gold case with glass on both sides, and around the outer circumference was engraved this inscription ^{67 68} “In New York 1790 Jno Greenwood made Prest Geo Washington a whole set of teeth—The enclosed tooth is the last one which grew in his head This was worn by Mr Greenwood attached to his watch-chain, from which was also pendant two specimens of his own skill and ingenuity, in the shape of a gold watch key and a seal of sea-horse ivory inlaid with the same metal, the chasing upon the latter articles, however, was done by Rockwell The chain which was originally composed of round circlets of gold fastened one within the other, now presents rather a unique appearance, owing to the fact that as the metal was difficult to procure at times in the shape of wire, Mr Greenwood would in the emergency of the moment, remove the links to form pivots of in his business and would supply their place with perforated plates of “latin-brass” [sic]

made by himself, these plates, as they pleased his fancy, he never cared to have replaced by a more generous material" The tooth in the case has not been removed from the chain (See Fig 121, showing a photograph of the tooth in its case, together with the chain) "The small button having the head of Washington in relief upon it seen in the picture, was attached at a later period to the chain, having been secured Aug 1, 1824, by Dr I J Greenwood, M D, D D S from Mr Scovill It was cast in the same mould as was the gold set presented to General Lafayette, during his last visit to America in 1824 by the Scovill Manufac Comp of Waterbury, Conn"

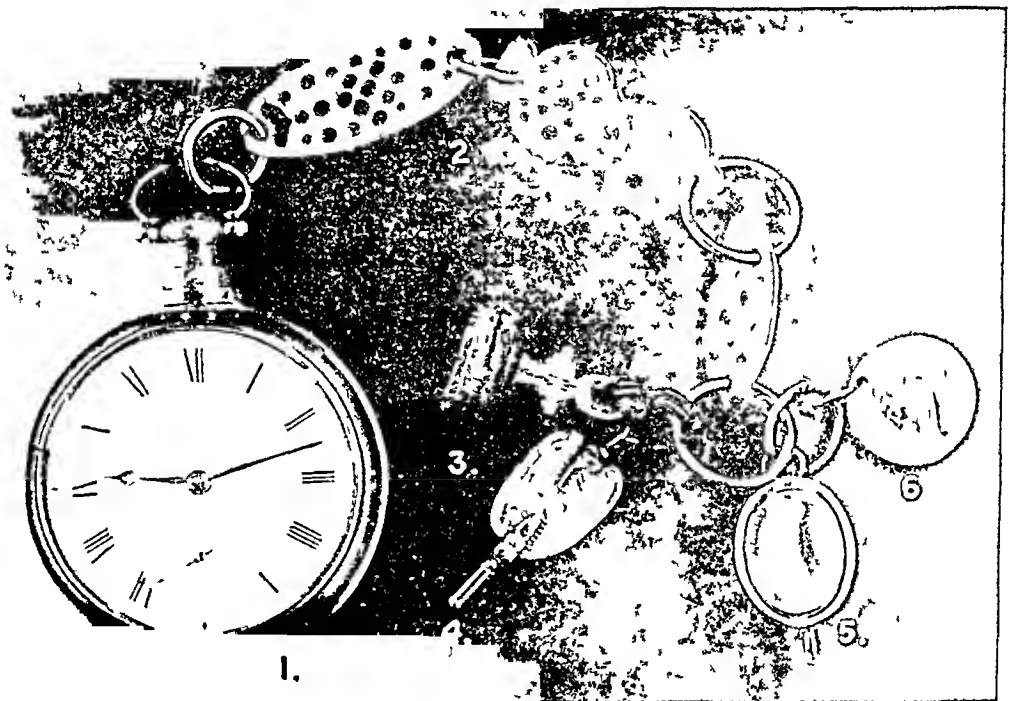


Fig 121—Gold watch, etc, as worn by John Greenwood 1 Gold watch, 2 Watch chain of latin brass, 3 Gold seal, 4 Gold watch key, 5 Washington's last tooth in gold case, 6 Gold charm with Washington's profile (Presented to the *New York Academy of Medicine* by the Misses Greenwood)

The denture which had been sent on to New York from Philadelphia during the winter of 1796 and 1797 was ultimately altered and repaired, and in January, 1797, Mr Greenwood had constructed an entire new set, which so pleased the President that he immediately returned the original and other dentures which he was using, to be altered in a similar way, if possible These facts we learn from the following letters, the first of which is dated from Philadelphia where Washington, for a second time Commander-in-Chief, had proceeded to make some military arrange-

ments with the Secretary of War. He left Mount Vernon about the 3rd of November, and on his return left Philadelphia about December 14, 1798. In the middle of May of the same year he was again in Philadelphia for a week.

"Phila 7 Dec 1798

Sir,

What you sent me last, answers exceedingly well,—and I send the first to be altered & made like them, if you can.

Your recollection of these,—with the directions and observations contained in my two last letters—the latter especially—superceded the necessity of being particular in this—

I will however just remark that the great error in those (now returned to you) is, that the upper teeth & bars do not fall back enough thus (*) but stand more upright so (*) by which means the bar at (v) shoots beyond the gums and not only forces the lip out just under the nose but by not having its proper place to rest upon frets, & makes that part very sore.

I shall add no more than to request you will be so good as to let me have them as soon as you conveniently can,—altered or not altered—Direct for me at this place, or at Mount Vernon, as it is not likely I shall be here more than two or three days longer.

I thank you very much for your obliging attention to my requests—and am

Sir

With esteem & regard—Yr very
Hble Servt

G Washington

P S—I am willing &
ready to pay what
ever you may charge me
Mr Jno Greenwood"

* See Fig 122

As it will be seen from the above, the first President of the United States asked for no favors from the dentist he employed. He wanted satisfactory work done for him, and he was perfectly willing to pay for it. The last paragraph of this letter and the entire succeeding one, were later framed by Mr John Greenwood and hung in his office. The address reads "For Mr Jno Greenwood and to be opened by him only." It bears no postmark and was evidently forwarded by private conveyance.

The set returned by Washington on the 7th, was speedily altered by Greenwood and returned the same day, as the President mentions in his reply of the 12th. Apparently Washington was well pleased with the altered denture, though he further cautions Greenwood by again giving the same explicit directions as to the angle of inclination of the front teeth, and to be sure that this would be similar to the set he had just received. At the same time a third set, well worn and filed, was returned to Greenwood to be altered, if possible. This undoubtedly was the denture made in 1791.

Philadelphia, Dec^r 1798

Sir,

I had your letter sent me in it
an iron exceedingly well made, and I send the first
to be rectified & made like the second, you can

Your recollection of these articles in the
directions and observations, contained in my
the instructions, the latter especially - I am
the receipt, or being particular in this

I will however just remark that
the great error in those now returned is, that
the upper teeth & ears do not fall back enough
thus but stand more upright so by which the
the bar at (a) shoots beyond the gums and not
only forces the lip out just under the nose
but by not having it in proper place to rest
upon front, it makes that part very sore.

I shall add no more than to request
you will be so good as to let me have them as
soon as you conveniently can, - altered or
not altered - Direct for me at this place, or
at Mount Vernon as it is not likely I shall
be here more than two or three days longer.

I thank you very much for your
obliging attention to my requests - and am

Yours very truly
J. R. Greenwood

With esteem & regard
Yours
J. R. Greenwood

"Philadelphia 12th Dec 1798

Sir,

Your letter of the 8th came safe—and as I am hurrying, in order to leave this City tomorrow, I must be short

The principal thing you will have to attend to, in the alteration you are about to make, is to let the upper bar fall back from the lower one thus (*) whether the teeth are quite straight, or inclining a little in this, (*) or a little rounding outwards thus () is immaterial, for I find it is the bars alone, both above and below that give the lips the pointing and swelling appearance—of consequence, if this can be remedied, all will be well—

I send you the old bars, which you returned to me with the new set, because you have desired—But they may be destroyed, or any thing else done with them you please, for you will find that I have been obliged to file them away so much above, to remedy the evil I have been complaining of as to render them useless perhaps to receive new teeth—But of this you are better able to judge, than I am If you can fix the teeth over on the new bar, which you have, on the old bar, which you will receive with this letter, I should prefer it because the latter are easy in the mouth and you will perceive moreover that when the edges of the upper and lower teeth are put together that the upper falls back into the mouth, which they ought to do, or it will have the effect of forcing the lip out just under the nose—

I shall only repeat again, that I feel much obliged by your extreme willingness, and readiness to accommodate me and that I am,

Sir

Your Obedt Servant

G Washington

Mr Jno Greenwood "

* See Fig 123

These letters not only show that Washington had his own ideas as to just how the teeth should be inclined, but they also clearly indicate that he himself attempted to file those made by Greenwood to overcome the projecting lip

Between December 12 1798, when Washington returned to Greenwood the sets to be repaired, and December 28, when the former received them in return, Washington visited Dr Spence in Philadelphia, for there is a Ledger entry of \$18 paid to him on December 20 One can only surmise what occurred, but the amount paid might mean that another denture had been made for Washington At any rate, Washington still preferred Greenwood's services, as his reply of January 6, 1799 shows

On December 28, 1798, Greenwood returned to Lieut General George Washington at Mount Vernon the two sets which he had altered with the following letter It is this letter which has caused some controversy regarding the soaking of the sets in port wine Greenwood's curious English and spelling is retained

Philadelphia Decr 12th 1798

57

Your letter of the 8th I have
 late — and as I am here & cannot
 leave this City tomorrow, I must be short —
 The principal thing you will have
 heard of in the matter is that I am about
 to make up to let the upper bars sink
 from the lower one thus } whether the teeth
 are quite straight, or inclining a little &
 thus, } or a little more outwards thus }
 is immaterial for I find it is the bars alone
 both above and below that give the lips
 the pouting and swelling appearance —
 of consequence, if this can be remedied,
 all will be well —

I send you the old bars which
 you returned to me with the request a
 cause you have desired — that they may
 be destroyed, or any thing else done with
 them, ~~as you please~~ I am now sick, and that
 I have been obliged to lie in my room so much
 above, to remedy the evil I have been com-
 plaining of is to render them useless per-
 haps in consequence teeth — But of this

Fig 123 — One of Washington's letters to John Greenwood, dated December 12, 1798
 In this letter he tries to explain just how he desired the teeth to incline to obviate
 giving 'the lips the pouting and swelling appearance' (Courtesy of the Old South
 Meeting House, Boston)

"New York

Decembr 28, 1798

Sir

I send you inclosed two setts of teeth, one fixed on the Old Barrs in put and the sett you sent me from philadelphia which when I Received was very black Occtained either by your soaking them in port wine, or by your drinking it Port wine being sower takes of all the polsh and All Acids has a tendency to soften every kind of teeth and bone Acid is Used in Conloring every kind of Ivory therefore it is very pernicious to the teeth I Advice you to Either take them out After dinner and put them in cleun water and put in another sett or Cleun them with a brush and som Chalk scraped fine it will absorbe the Acid which Collects from the mouth and preserve them longer—I have found another and better way of using the sealing wax when holes is eaten in the teeth by acid &c—first Observe and dry the teeth then take a pece of Wax and Cut it into As small peeces as you think will fill up the hole then take a large nail or any other peice of iron and heat it hot—into the fier then put your peice of wax into the hole, and melt it by means of introducing the point of the Nail to it I have tried it, and found it to Consolodate and do better then the other way and if done proper it will resist the saliva It will be handyer for you to take hold of the Nail with small pliers thin with a tongs Thus the wax must be very small not bigger than this if your teeth Grows black, take some chalk and a pine or cedar stick it will rub it of If you want your teeth more yellower soake them in Broath or pot liquer, but not in tea or Acid Porter is a good thing to Conlor them and will not hurt but preserve them but it must not be in the leat prickd

You will find I have Altered the upper teeth you sent me from philadelphia leaving the enamel on the teeth dont preserve them any longer then if it was of it onely holds the Color better, but to preserve them they must be very Often Changed and Cleained for whatever attacks them must be repelled as Often or it will grun Ground and destroy the works—the two setts I repaired is done on a different plan then when they are done when made intirely new for the teeth are screwed on the barrs insted of haveing the barrs Cast red hot on them which is the reason I beleive the destroy or desolve so soone near to the barrs

Sr

After hoping you will not be Oblidged to be troubled very sune

in the same Place

I subscribe myself

Your very humble

Servant

John Greenwood

Sr the Additional Charge is
fifeteen dollars

PS I expect next spring to move my family
into Connecticut State if I do I will
rite and let you know and wether I give
up my present business or not I will As
long as I live do any thing in this way
for you or in any other way in my power
If you require it"

You will find I have altered the
 upper teeth you sent me from Philadelphia
 leaving the enamel on the teeth don't
 preserve them any longer than if it was
 as it only holds the color better but to
 preserve them they must be very often
 changed and cleaned & for whatever
 attacks them must be repelled as often
 or it will gain ground and destroy the
 work - the ~~two~~ two sets, required to come
 on a different plan than when they are done
 when made entirely new for the teeth are
 screwed on the bars instead of having
 the bars fastened on them, which is
 the reason I believe the best or perhaps
 so soon near to the bars

After hoping you will not be
 obliged to be troubled any more
 with the same ill, I
 subscribe me, Sir, to
 your very humble
 servant
 J. Greenwood

The National Obverse is
 fifteen dollars

I expect next to be referred
 into Committee of 120 with
 vote and let you know and whether it is
 up me, recent to be referred or not will do one
 or 7 live do one thing in this way for you
 or in any other way in my power -
 as you request -

Fig. 124 — John Greenwood's reply to Washington's letter of December 12, 1793, explaining how to remove the stains from the teeth and that he had followed his instructions in making the alterations suggested. (Reproduced by courtesy of the Pennsylvania Historical Society.)

This letter appeared in the *Magazine of American History* pp 294 and 295, V 16, July-Dec 1886, with the following comment

"It is perhaps not generally known that the last one of George Washington's teeth is in lien-loom in the family of the late John Greenwood, a gentleman who sustained the responsible and interesting relation of dentist to the 'father of his country' That fact was incidentally mentioned by the lawyers in a case before the surrogate court yesterday afternoon Mr Hamilton Squire, as counsel for the heirs of one Henry Weyer, long since deceased, yesterday made application to Surrogate Rollins to compel the representatives of the Greenwood estate to pay over to the Weyer heirs a sum of money which it is claimed has been held by the Greenwood family as trustees for the heirs of Jane Weyer since the year 1816, and which was left by Jane Weyer with Mr John Greenwood at that time Mr Greenwood acted as Washington's dentist for several years After Washington went to Virginia from New York, he sent by letter to Mr Greenwood the last one of his natural teeth, to be used by the latter as a pattern for a new set This tooth has been bequeathed from generation to generation in the Greenwood family, and is yet in their possession This circumstance, which was mentioned in the course of an argument by Mr Rudd, the counsel for the Greenwood estate, furnishes another proof of the humanity of General Washington, in that in the plenitude of his powers he suffered the dentist to survive him In connection with this curious bit of information we are able, through the courtesy of Mr William Alexander Smith, of New York, to publish the original letter written by Greenwood to Washington in relation to his false teeth—Editor "

On January 6, 1799, Washington replied to Greenwood's letter of December 28, the last one sent by him

"Mount Vernon, Jan 6th, 1799

Sir—Your letter of the 28th ult, with the parcel that accompanied it, came safe to hand I feel obliged to you for your attention to my request and for the directions you have given me

Enclosed you will find bank notes for fifteen dollars, which I shall be glad to hear have got safe to your hands If you should remove to Connecticut, I should be glad to be advised of it, and to what place, as I shall always prefer your services to those of any other in the line of your present profession

I am, sir,

Your very humble servant,

G Washington "

"I thank you very much for your obliging attention to my requests, and am, Sir, with esteem and regard,

G Washington "

"To John Greenwood

P S I am ready and willing to pay what you may charge me "

The last part of this letter Greenwood made full use of, as may be

seen in his advertisement in the *New York City Directory* of 1801 (Fig 95, page 239) Greenwood acknowledged this letter on the 11th

"January 11, 1799

New York

Your Letter of the 6th ult with the two enclosed Bills, Containing fifteen dollars came safe to my hands for which I Return you thanks I will rite and let you know if I Remove from here and where to

As I mean to perform for you in my present professional line when I have done with every other person,

I am Sir

Your humble Servant

John Greenwood

Lt Gen George Washington

P S I never make any charge against you either in book or otherwise "

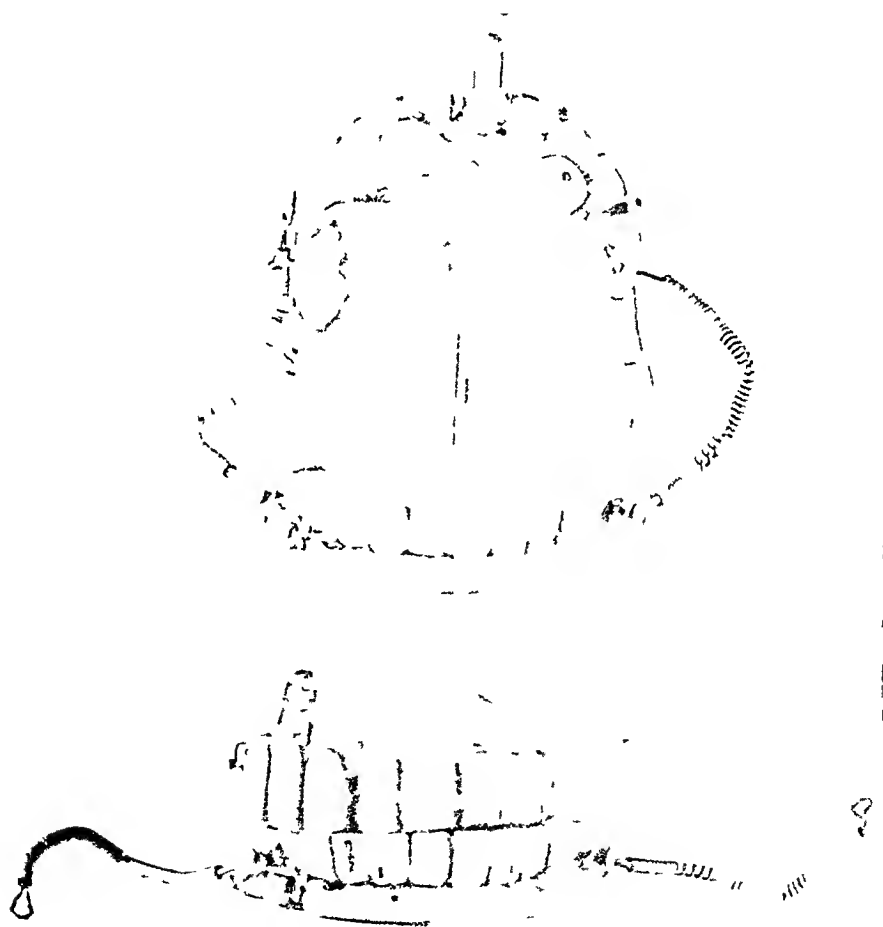


Fig 125 —The Greenwood denture with spiral springs as altered at Washington's suggestion in 1798 The first known specimen of a gold swaged plate (Reproduced by courtesy of the *Baltimore College of Dental Surgery*)

The last partial set made by Greenwood in 1798 was carried by Washington to his grave, but just when the other two sets were returned to Greenwood, we do not know. He wrote on December 12 and December 28, 1798, that he was returning two sets, but we are inclined to believe that they were the upper and lower of the repaired 1795 set, and which is now in the *Baltimore College of Dental Surgery*. These were presented by Isaac I. Greenwood to Dr. John Allen, and according to a letter dated November 3, 1890, he in turn gave them to the *Baltimore College of Dental Surgery* about 1880, where they now are kept in a special case (Fig. 125).

The illustration shows the set with spiral springs as it was returned and as it appeared after the suggested alterations by Washington. The upper is made from a swaged plate of gold and amply illustrates the progress in dental science at that time. Originally the ivory part containing the teeth, was carved in one solid piece. This portion was removed, Greenwood stated on December 28, and divided into three sections. Each was again replaced, this time by means of three gold backings which were directly attached by gold screws to the plate, and to the ivory portion. With the lower, the six anterior teeth were sawed off the ivory bar at the gum margin and divided, at the center, into two parts. Each then had two wooden pivots inserted and these were attached to the ivory bar, as Washington requested.

In the *Dental Cosmos* p. 470, 1893, there is given a slightly different version of these alterations:

"The upper case is of gold, and is, I think, one of the first plates swaged between metal dies. An extra thickness of gold was soldered over the alveolar ridge, in which nine holes were drilled, and in this thickened portion wooden pins were inserted. The teeth were carved out of hippopotamus bone, in two sections of six teeth from central incisor to molar, and in each section holes corresponding to the pins or plate were drilled, by means of which they were set on to the plate and held in position. The lower case had no gold base, but was carved out of one piece of hippopotamus bone being raised at its terminal ends to represent a molar tooth on each side, in front of each molar, blocks of five teeth carved from the same material were set on wooden pins in the same manner as on the upper plate."

The base had evidently been so altered, as Washington mentioned in his letter of December 12, 1798, that it left no groove for resting properly on the gums and became merely a flat surface.

For the last set, an upper, according to the letters dated December 13, 1798, Greenwood adopted a new and advanced type of denture construction. From the manuscript, we learn that the upper was another gold swaged plate with individual backing for each tooth directly welded to the plate. To each of these backings, individual teeth were attached by screw rivets, in order not to destroy the value of the teeth, a plan similar to one in use by the profession not so many years ago.

It is a difficult procedure to follow clearly the number of new dentures, partial sets or alterations made by Greenwood, but from the Ledger accounts of Washington, we know that complete sets were made in 1789, September, 1791, February, 1795 and again January, 1797, and partial sets, on February 16, 1791, a lower, and in December, 1798, an upper^{69 78}

In the manuscript of *The Portraiture of Washington*⁷⁹ prepared by Isaac J. Greenwood, in 1862, we find the following

"Lossing in his 'Mount Vernon and its Associations,' after stating that the President and his family set out for their home on the 30th of August, 1790, (after the adjournment of Congress,) affirms that—'Washington never saw New York again' I know not the authority of Mr. Lossing for this assertion, but my father, who was born in July 1795, has frequently told me that he had been seated as an infant on the knee of the 'great, good man' Mrs. Jane W. Langdon, the only daughter of Dr. John Greenwood, gave me the following account, a few months previous to her death (1861) of Washington's visit to her father's office,—the only visit which she recollected. Washington, she stated, came to New York, privately, about six or eight weeks previous to his death, (which transpired Dec. 14, 1799,) and remained a few days at the residence of Sir John Temple in Greenwich St., between Dye and Courtlandt streets. During his visit he called upon Dr. John Greenwood, then at No. 13 Park, who made for him a new set of teeth, with which he was soon after buried. Mrs. Washington also accompanied the General and had two back teeth filled. Their visit was distinctly remembered by Mrs. Langdon, who was born in Nov. 1789, her father was engaged in his office with a lady at the time, and requested the General and his wife to walk into the back family sitting-room, which communicated by a small passage way or entry. Washington conversed with Mrs. Greenwood, who was in the room for some time, and desired her little daughter Jane to draw near, after caressing the latter, and asking her some questions as to her studies, he drew the attention of his wife (who remained reserved and spoke little at the interview) to her long black silky hair. Mrs. Langdon stated that the weather was warm, and the doors were open, looking out upon the flowerbeds of the garden, (never had I aged in New York during the summer of 1799.)

I cannot join with 'W', a correspondent of the Historical Magazine (Vol. V p. 125,) in doubting the fact of this visit of Washington to New York, though there are some inaccuracies of memory in the above statement, but would place the date anterior to 1799. Sir John Temple, who died Nov. 17, 1798 aged 67, resided during that year and '97 at 156 Greenwich St. and previously in Courtlandt St., with his house-keeper my aunt when a child, was quite a favorite. Dr. John Greenwood resided for several years previous to 1799 at No. 3 Church St., and early in 1800 purchased the property at 13 Park Row. The truth can probably be learned only from the private letters and memoranda of Washington."

An examination of Washington's diaries and letters fails to indicate such a visit, and the fact is doubted by most biographers of Washington.

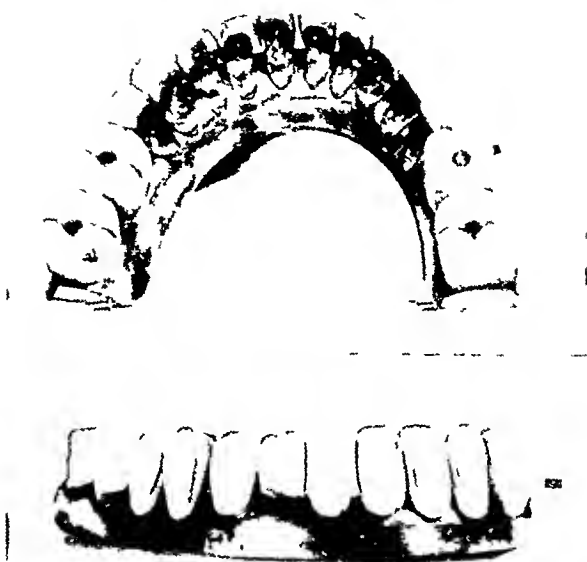


Fig 126—Lower denture of silver, made about 1820, showing how each individual tooth was either riveted or attached by screws to a backing riveted or soldered directly to a swaged plate. It was this method of construction that Greenwood used in Washington's last denture. (Author's collection)

In Chapter III, while considering Benjamin Fendall, there are several letters that are of particular interest at this time which might help to substantiate the above story. It was then shown that Mrs Washington had sought the service of Fendall early in 1798, and that on March 6 Washington had to make a request that the denture then under construction be sent immediately or Mrs Washington would have to secure the services of someone else. Fendall's reply, with denture and bill, was not sent until August 10, 1799, a year and a half later, and we do find that in the meantime Mrs Washington did seek the help of Mr Whitlock. As he was in Boston practicing dentistry as well as performing on the stage, he was unable to be of assistance. The letter dated April 17, 1799, was obtained through the courtesy of Mr John Cribbel of Philadelphia, and is as follows:

"Philadelphia April 17th, 1799

Mrs Washington will be much obliged to Mr Whitlock—to make for her a set of teeth—to make her some thing bigger and thicker in the front and a small matter longer.

She will be very glad if he will do them soon as those she has is almost broke—"

Philadelphia April the 19th
1794

Mrs Washington will be much
obliged to Mr Whitlock. to make
for her a set of teeth - to make them
some thing bigger and thicker in the
front and a smath rather longer
She will be very glad of the work.
So them soon as those she has
is almost broke -

Mr Whitlock.

FIG. 127—Letter of Martha Washington to Mr. Whitlock, requesting dental service
(Reproduced by courtesy of Mr. John Cribbel)

Therefore it is more than likely that Mrs. Washington did seek the services of Greenwood, her husband's dentist at that time.

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- 2 Blanton W. B. op cit No 1-54
- 3 Fitzpatrick John C. George Washington Himself. Indianapolis 1933, 47
- 4 Fitzpatrick J. C. op cit 3, 78
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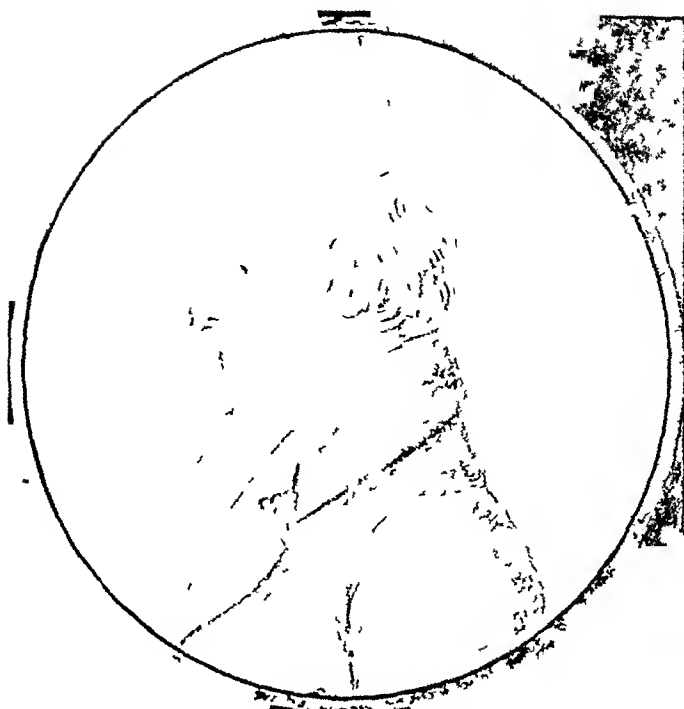


Fig 128 —John Greenwood, 1805, age 45 Began practice in New York in 1785 From a crayon portrait done in Paris in 1806 by Roy (Reproduced by courtesy of the Misses Greenwood and The Frick Art Reference Library)

- 7 Fitzpatrick, J C op cit No 3, 132
- 8 Blanton, W B op cit No 1, 53
- 9 Conway, M C Ed by George Washington's Rules of Civility Traced to Their Sources and Restored New York, 1890
- 10 Riverside Literature Series Rules of Conduct Diary of Adventure, Letters and Farewell Address Boston, 1887
- 11 Moore, Charles Ed by Rules of Civility and Decent Behavior in Company and Conversation Boston, 1926
- 12 Hart, A B op cit No 5, 222-224
- 13 Toner, Joseph Meredith Excerpts in Manuscript, from Account Books of Washington, etc (*Library of Congress*)
- 14 Fitzpatrick, J C op cit No 3, 73
- 15 In a letter from J C Fitzpatrick, Feb 5, 1932, he says
"The William Baker of the latter's account, November 26, 1755, is spelled out by Washington, William, so there is no chance of a mistake as to Wm and Dr I have very little doubt that Dr Baker is your Doctor
"I looked up the original entry in Washington's account book, 1755 The entry is for Baker's Hatter account which, as the case with a number of other entries, seems to imply that Washington paid a hat bill, against Baker as a method of squaring Baker's bill against him"

- 16 Ford, Paul Leicester The True George Washington Phila , 1896, 38
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- 41 Greenwood, Isaac J(ohn) Remarks on the Portraiture of Washington *Mag Am Hist* , 1878, Jan , 3 1-2
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- 44 See Chapter X Le Mayeur, p 170
- 45 Fitzpatrick, J C op cit No 3, 458
- 46 Idem 476
- 47 Woodward, William L George Washington, the Image and the Man New York, 1926, 390

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- 51 Brinton, W B op cit No 1, 55-56
- 52 Greenwood Isaac John op cit No 40 Manuscript of 45 pages
- 53 Idem op cit No 40, 10
- 54 Idem op cit No 40 5
- 55 Idem op cit No 40 Note opposite 5
- 56 Idem op cit No 41 2
- 57 Idem op cit No 40, ms 6
- 58 Idem op cit No 40 Note opposite ms 6
- 59 Fitzpatrick, J C op cit No 22, 4 71
- 60 In Appendix B, a complete record will be found as to who possessed the Greenwood letters
- 61 Greenwood, I I op cit No 40, 32
- 62 Appendix C
- 63 Custis, George Washington Recollections and Private Memoirs of Washington Phila 1859, 520
- 64 Greenwood, I J op cit No 40, 21
- 65 Tuckerman, Henry Character & Portraits of Washington New York, 1859, 53
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CHAPTER XVII

HOUDON'S LIFE MASK OF WASHINGTON COMPARED WITH HIS PORTRAITURES

C ONTEMPORARIES of George Washington often commented that none of his painted portraits accurately resembled the man. Even some members of his immediate family remarked that the pictures painted by various artists all looked very much alike and were not really like the individual himself. Stuart, according to his daughter,¹ "when asked once for his candid opinion of the comparative merits of the various busts and pictures of Washington, taken at different periods, answered in the most emphatic manner, 'Houdon's bust came first and my head of him next. When I painted him, he had just had a set of false teeth inserted, which accounts for the constrained expression so noticeable about the mouth and lower part of the face. Houdon's bust does not suffer from this defect. I wanted to paint him as he looked at that time.'" Thus one sees that even those who attempted to portray him recognized that what they were leaving behind failed to express the man himself.

This is partially attributed to the fact that the expression of Washington's face varied according to circumstances, and the painter saw it only in repose. In a letter to Francis Hopkinson,² Washington left us a partial explanation. "I am so hackneyed to the touches of the painters' pencils, that I am now altogether at their beck, and sit 'like Patience on a Monument' whilst they are delineating the lines of my face. It is proof, among many others, of what habit and custom can accomplish. At first I was impatient of the request and as restive under the operation as a colt is of the saddle. The next time I submitted very reluctantly, but with less flouncing. Now no dray horse moves more readily to his thill than I do to the painter's chair."

A great similarity also exists in the word-pictures penned by those who met Washington at different periods of his life, and under varying circumstances. One of the earliest and most comprehensive pictures of the physical appearance of Washington was written by a friend and companion-in-arms, George Mercei, in 1759.³

"He may be described as being as straight as an Indian, measuring six feet two inches in his stockings, and weighing 175 pounds. His frame is padded with well-developed muscles, indicating

A study of Houdon's life mask now in *The Pierpont Morgan Library* with a series of his portraits has revealed some interesting features heretofore not recognized and may offer an explanation as to why none of his paintings accurately resembled Washington, and also why Stuart thought that the mask was superior to his own efforts

Of the numerous artists who attempted to portray the great American after 1789, all apparently found it impossible to paint a satisfactory expression around the mouth and many attributed this to the "false teeth which did not fit and pushed his under lip outward"

Fig 129, showing some of the actual dentures that Washington had in his mouth, might lead one to the conclusion that they were responsible for the artists' difficulties, however, it is more likely that the fullness noted was instead the result of outward pressure of the spiral springs attached to rather than the dentures themselves. Not only did the springs have a tendency to push the lower denture forward, but they also caused the cheeks to become puffed

In 1785 the State of Virginia commissioned the celebrated French sculptor, Jean Antoine Houdon, to design a life-size statue of Washington, which now stands in the rotunda of the state capitol in Richmond. In Washington's *Diaries* there is recorded that from October 2 to October 17 of that year, Houdon was a visitor at Mount Vernon "to form my bust"¹² and that they were taken in "Plaster of Paris"¹³. Curiously, Washington became more interested in Houdon's preparation of the plaster which was to preserve his true countenance, than in the results themselves¹⁴.

At the time Houdon obtained the impression or mould of Washington's face, he also prepared a bust in clay. Returning with both to his Paris studio, he there completed the statue ordered by the State of Virginia. In a letter from Thomas Jefferson to Washington, bearing the date of Paris 4 January, 1786, Jefferson wrote "He (Houdon) has brought with him a mould of the face only, having left the other part of his work with his workmen to come by some other conveyance". From this statement we must assume that only the impression and not the mask itself was made at Mt. Vernon.

Besides the statue, from the mask and bust Houdon made a series of busts of Washington that now are at Mt. Vernon, Stockholm, Versailles, in the *Louvre* and *The New York Historical Society*.

With the passing of years, considerable controversy arose as to whether the mask in question was actually that of Washington, if it was made by Houdon or Joseph Wright (1756-93), if the present mask in *The Pierpont Morgan Library* was the original and the one made by the great French sculptor. Today there no longer remains any doubt as to the mask's genuineness and that it is the one Houdon obtained directly from Washington's face.

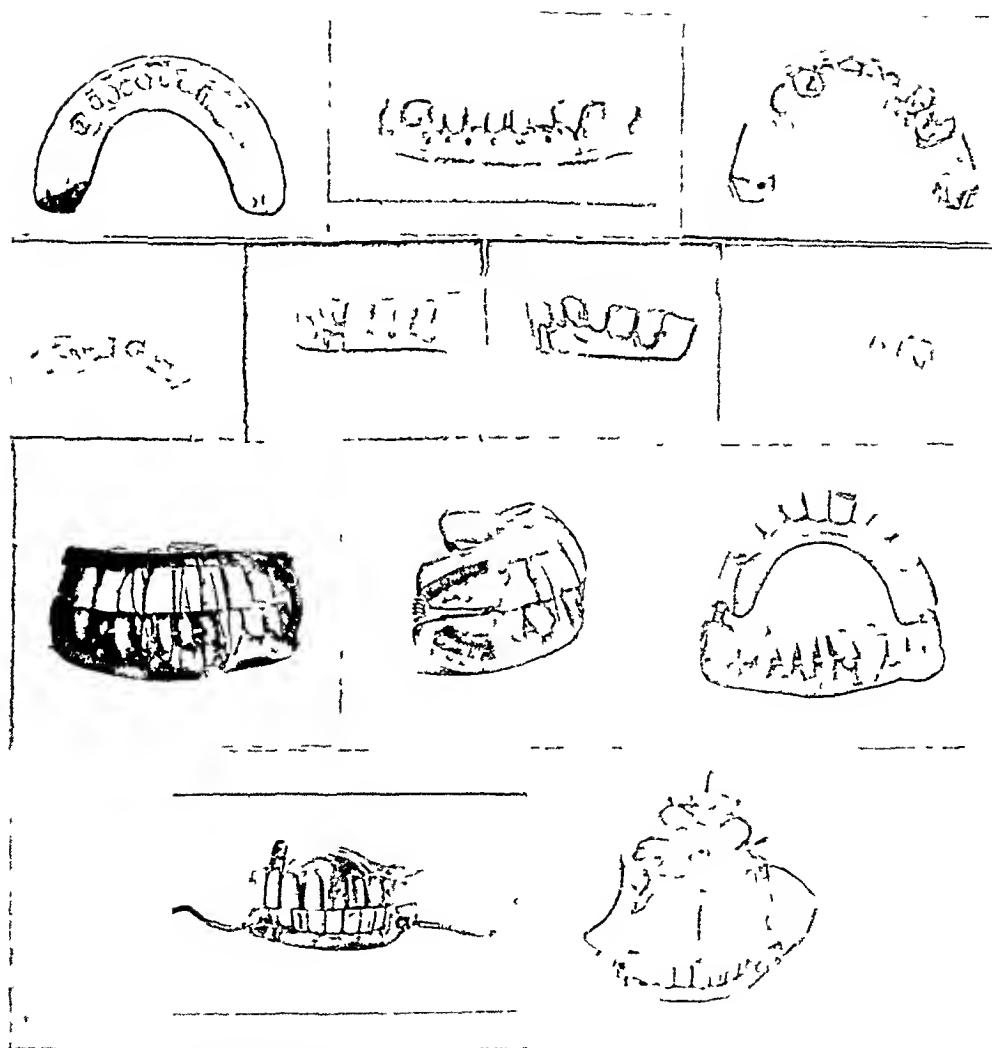


Fig 129 —Dentures worn by Washington Described in previous chapter

The first to describe the mask was W W Story in 1887,¹⁵ who gave an accurate history as to the various owners who had previously had it in their possession, up to the time he acquired it. Upon Story's death, his widow sold it to J Pierpont Morgan and it now graces his Library.

Many theses have been written about the mask, and within recent years several books relating to it have appeared.¹⁶ The mask has often been reproduced to illustrate some phase of Washington's life, the photographs used were taken improperly, however, and badly illuminated, so that they failed to do justice to the mask. As a result we had a distorted image of the face, with the lower lip projecting beyond the upper and a lengthened upper lip that lacks the fullness found in the life mask. Many of the reproductions also show evidence of having been retouched, some having additional hairs as well as other details that are foreign to the mask.

In order that the details and features of the mask might be properly presented, the Librarian of *The Pierpont Morgan Library*, Miss Bella da Costa Greene, kindly consented to and permitted me to rephotograph it. These negatives, Figs 130, 131 and 132, are a decided improvement over the previous photographs, for they present more clearly and accurately the outlines and features of Washington's face.

The mask occupies the area between the hair on the forehead and the apex of the chin. The original impression or mould must have been lifted from the face as a single piece, otherwise there would be some evidence on the mask of the joining together of separate sections.

The mask not only preserved for posterity the lines and features of Washington's face, but retained the texture of his skin. That the original impression must have been in contact with the skin itself is further borne out by the impression of individual hairs on the overhanging eyebrows, on the temples above the ears and on the forehead. Also embedded in the plaster are some of the actual hairs of Washington as precious mementos of the man himself. These were highly prized by Mr Morgan.

Nowhere on the mask, however, can one observe pockmarks as a result of Washington having had smallpox in his youth. This is strange, for many of his portraits show such blemishes. Under the date of the 17th of November, 1751, in the Washington's *Diaries*, edited by Mr Fitzpatrick, there is to be found the following footnote: "It left the usual blemishes upon him, but the exact extent to which the marks were noticeable does not seem to be a matter of positive record." Certainly the mask shows no indication of the disease.

It is known that Washington also had a scar on the left cheek, a result of an abscessed tooth which Charles W Peale, Stuart, Williams and others found of sufficient importance to reproduce on their portraits,



Fig 130 —Houdon's Life Mask of Washington Made at Mt Vernon, October 13, 1785
(Reproduced by courtesy of *The Pierpont Morgan Library*)



Fig 131 —Left side of Houdon's Life Mask (Reproduced by courtesy of *The Pierpont Morgan Library*)



Fig 132 —Right side of Houdon's Life Mask (Reproduced by courtesy of *The Pierpont Morgan Library*)

but no such scar is to be found on the mask. There is a corresponding spot on the mask, however, where the surface appears to have been scraped and smoothened as if the scar had been removed.

While some have described Washington's face as being "long rather than broad with high round cheek bones" which "terminates in a good firm chin" the mask gives the impression that the face was broad, short and round with a very unsymmetrical chin. It depends, however, upon how one views the mask as to what type of face he sees. The reason for this is the marked variations in facial outlines on the right and left sides and of which we will have more to say later.

As Eisen and Conrow have pointed out¹⁷ "the eyes have been opened artificially by the artist, probably to preserve their actual appearance and proportions. In opening the eyes all of the original surface of the eye-sockets were destroyed and changed, and now stand out with a greater whiteness than the rest of the face. All this part has naturally lost every trace of skin texture, as in all sculpture made by hand."

The sockets as a result are large and the eyes set deep within them. They are widely separated, something that is not generally observed in Washington's paintings. Whether Houdon, in making these changes, altered the position of the socket, no one can now ascertain, for they are not of equal distance from the center of the bridge of the nose. The wide separation of the eyes is due to the breadth of the bridge of the nose, for the latter, long for his face from the bridge to the tip, is extremely broad, large, straight, thick and flat. One finds, however, a difference between the right and left sides. Along the bridge on the left one finds a marked depression as if the nose had been broken. A similar hollowness near the corner of the left nostril can also be observed. This causes the tip of the nose to appear to be more prominent, a feature observed in nearly all of Washington's portraits. The overhanging eyebrows are heavy, those on the right are inclined downward as they normally should, whilst the left has an upward curve. This and many other features observed would indicate that Washington at some time must have had some serious muscular disturbance. See Fig 131.

The mouth is large and firm with tightly closed lips, for he had to breathe through tubes inserted in the nostrils. This gives the face a firmer look than perhaps in natural life. From the right corner nearly two-thirds of the way the mouth extends straight across and then begins to droop. There is a greater difference in height by 3 mm. from the right corner of the nostril to the lips than is to be found on the corresponding left side, whilst from the same corner (right) of the mouth to the chin, a greater difference of 6 mm. is to be found than on the opposite side. Instead of the philtrum, the hollow indent or depression below the septum of the nose being directly in the center of the face, the mask shows that it extends slightly to the left of its natural position. The profile views show

the lips to be in their normal relation to each other as one would expect if both the upper and lower teeth were present and not as generally painted in most of Washington's later portraits. That Washington still retained some of his natural teeth at the time the mask was made we now know.

The holes that appear on each side of the face are the result of the formation of air bubbles while plaster was being poured into the original impression.

Using the latest photograph of the Houdon life mask, it was decided to experiment to see if composite pictures of the two sides of Washington's face might not reveal a possible explanation of the difference of the many paintings of Washington. In Fig. 133 we have the three faces. The top photograph is the true life mask of Washington, below on the left is the composite head, made from prints, of the right side of the face, while on the right is the composite reproduction of the left side. Each of the composite pictures was obtained in the following manner. From the original top negative another print was secured, then this same negative was reversed and a second print obtained, but this time the right side appears on the left. Both photographs were then cut in half and the two right sides pasted together to make one composite photograph, and the two left another. In this way two interesting and different faces are revealed. That on the right (the left side) we will find has more of the facial characteristics of existing portraits of Washington than the one on the left, or his right side, yet it would seem one would be inclined to have selected the features on that side for strength, dignity, power or sympathy. Why the majority of his artists selected what now appears to be the weaker side, is difficult to understand.

Those who are familiar with faces have long recognized the fact that few are equally balanced or symmetrical. None so far, we believe, have pointed out how asymmetrical was the face of Washington. The possible difference in Washington's portraits may have come about because each artist "caught" one or the other of the two faces of the man, depending on the exact angle from which the face was viewed and studied.

In each of the three photographs the length of the face is exactly the same, it is in the width that the greatest variations occur, across the temporal, the mouth and chin areas. For that reason the *right face* is rounder, broader and even appears longer. Although in the life mask and *left face* these same measurements are identical, the *left face* seems to be narrower and shorter, due to the asymmetry of the chin.

The length of the nose, the distance from it to the lips and from the lips to the chin is also alike in all three photographs. It is not until we reach the lower part of the face that we begin to find marked differences and it was for that reason that Washington's artists began to find it difficult "to paint him as he is."

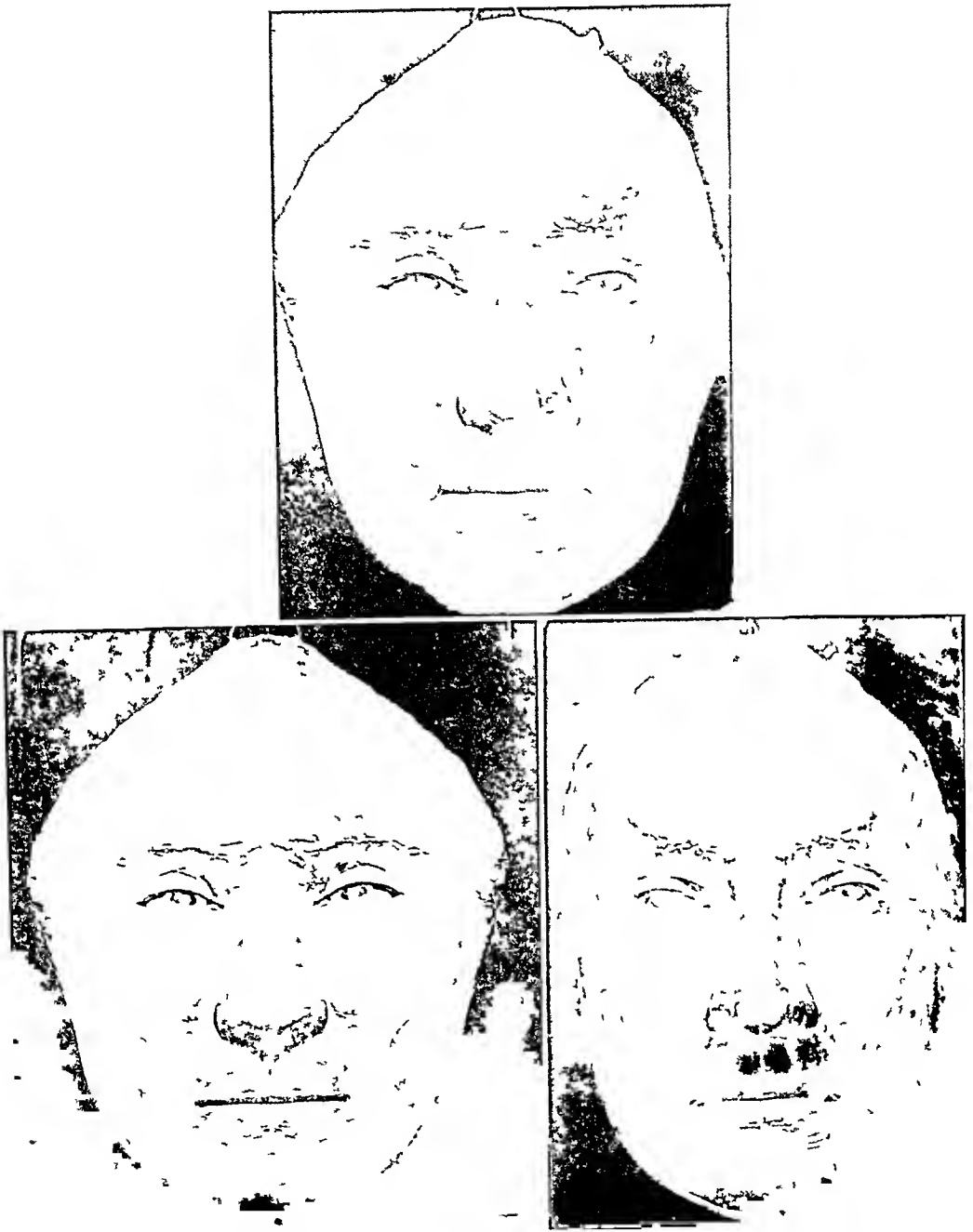


Fig 133 —Upper, Houdon's Life Mask of Washington Lower left, composite photograph of the right side of mask Lower right, composite photograph of the left side of mask

In most of Washington's paintings the nose is long, narrow and pointed, which does not correspond with the nose found on the life mask. However, as one studies the *left face* he can readily understand the reason for this. In it we find that the bridge is much narrower than that seen in the *right face*. The width across the nostrils although alike gives the appearance of being narrower with the tip of the nose being longer and more prominent. This is because of the *caved in* depression that one sees near the corner of the left nostril.

That it was difficult to paint the mouth correctly is now easily understood, for in the life mask the mouth runs straight across until near the left corner, when it begins to droop, and not as painted in any of Washington's portraits. That this drooping altered Washington's facial expression can readily be seen when the mouth in the *right* and *left faces* is studied. Certainly the one in the *right face* is much the stronger and firmer, the *left* weaker, yet this was the mouth most often depicted.

While the corners of the lips in the life mask are firm and straight, hardly showing the wrinkles beneath them, the profile views disclose that they were present but short, with the left one slightly deeper, but neither were as prominent or as long as his artists accentuated them. While the loss of Washington's teeth later might have deepened and lengthened these wrinkles, it was the drooping left corner so portrayed on both sides that caused the difficulty in painting and gave to his mouth the unnatural appearance. His artificial dentures in addition made it impossible to obtain a natural semblance.

A study of the chin area brings forth further interesting differences. In the *left face* the mentum or lower part of the face forms a smaller circle than in the *right face* where this arc changes half way towards the mouth and becomes larger in diameter. As a result we have at the junction a decided curve, giving to the apex of the chin a narrower aspect and making the chin cap more prominent.

In Fig 134, this time a double exposure of the same negative of the *right* and *left faces*, these variations can more clearly be observed. Here may rest the answer as to why Washington's artists differed so in their portraits.

Often one links the facial characteristics with psychological factors such as strength, dominance, fear, hatred, dignity and the emotions. Were this correct the right half of Washington's face would show the executive or the military man, while the other side would contain all that is generally termed weak, cunning or unreliable. Modern psychology now amply proves that there is no correlation between facial expression and intelligence, and orthodontists know what changes can be brought about in faces in their daily practice, yet these alterations do not affect the character of the individual.

Many artists and engravers have given to the world their conception of Washington. We have chosen a dozen of the better known paintings, especially those done in Washington's later life. There are many more, but we wanted to see how half a dozen different artists saw the same individual within the same period of years.

In Fig 135 (A) is the original bust made by Houdon at the time he obtained the life mask and which is now at Mount Vernon, (B) Houdon's sculptured bust now in the *Louvre* in Paris, (C) in Stockholm and (D) in the *New York Historical Society*. They are quite similar as far as facial composition.

Morgan and Fielding recently came to this conclusion,¹⁸ "In analyzing these various statements as to Washington's appearance, the conclusions would appear to be that well into middle life, Washington's face was long, with high cheek bones, and his nose was long and of the Roman type and comparatively not thick, except at the bridge, so that the strong possibility is that C. W. Peale's portrait of Washington, painted in 1778, more accurately resembles than any other the Washington of the Revolution. By 1789 or thereabouts Washington had lost his teeth and toward the end of his second term as President, care, abuse and advanced years had marked their changes heavily upon him. His face becomes more round, that is, it was shortened by the loss of his teeth, his eyes became less bright and his nose became much thickened by age."

Washington's Artist and Portraits

To Charles Willson Peale, we owe the precious portrait of the chieftain's youth (E). It is now in the *Metropolitan Museum of Art*, and is perhaps one of his earliest paintings, representing Washington in 1757 at the age of twenty-five. It is interesting to compare this with others by the same artist about fifteen (F) and again about forty years later (L). In the 1757 painting the eyes are deeply set in their sockets and widely separated, due to the broad bridge of the nose, a thing apparently totally disregarded in nearly all of Washington's later portraits. The nose is long, straight and broad, the mouth is not quite as large and wide as shown in his later paintings nor do the corners droop, the curve of the upper lip is centered with the philtrum under the center of the nose, the chin is broad, giving the face a rounder outline. The same artist's work is again shown next to the one just described (F). It was painted in 1772 and though the eyes are deeply set, they are smaller and less animated. Here we begin to find a narrowing of the nose which gives the appearance of being much longer and terminating into broad nostrils. The mouth retains the character of the earlier painting, though it seems a little straighter, firmer and wider.



Fig 134 —Double exposure of the composite *right* and *left* faces

A



B



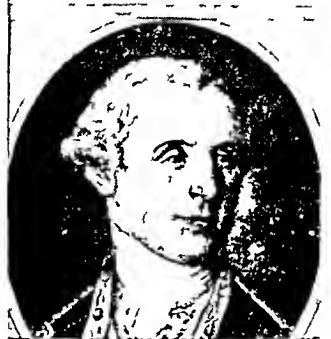
C



D



E



F



G



H

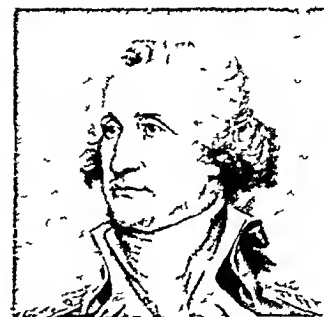


Fig 135—Washington as he appeared to his artists A Houdon's original bust at Mt Vernon B Houdon's bust now in the Louvre C Houdon's bust Stockholm D Houdon's bust New York Historical Society E Washington in 1757, age 25, by Charles Willson Peale, Metropolitan Museum of Art F In 1772, age 40, by Charles Willson Peale, Washington and Lee University, Lexington, Ky G In 1790, age 58, by Joseph Wright, Cleveland Museum of Art H In 1792, age 60, John Trumbull, Yale University

Not until 1789, when Washington was fifty-seven, do we find a marked change in his faecal appearance. Until then the various artists who attempted to portray the great American, had little difficulty in painting him, but after that date, all of his numerous artists failed to give to Washington's mouth an easy pose, and in all of the paintings thereafter the mouth appears to be drawn and stiff. G. W. P. Custis says ¹⁹ "In 1789 the first President lost his teeth, and, the artificial ones with which he was furnished answering very imperfectly the purpose which they were intended, a marked change occurred in the appearance of his face, more especially in the projection of the under lip, which forms so distinguishing a feature in the works of Stuart and others who painted portraits of the great man subsequent to 1789." Here his lower lip is beginning to be shown to project. The reason for this can be seen by the artificial teeth he then wore and upon which so many of his contemporaries commented in their observations. These dentures have been considered in the previous chapter. Washington in many of his letters also alluded to this fact and complained repeatedly that they should be altered so that they would not "force the lips out more than they now do, as it does this too much already."²⁰

The Joseph Wright bust portrait (G), the next shown, was painted about 1790 and is considered by many as the most correct likeness, giving a faithful expression of Washington's face at that time. A comparison of it with Houdon's life mask shows the measurements to be identical, yet it varies considerably. The eyes are not as deep, the nose being too long, due to its pointedness in contrast with that in Houdon's mask, the upper lip is shorter and straighter, the mouth broader, with the distance from the lower lip to the chin far greater. Even the faecal outline varies presenting a much narrower face and one not as fleshy.

No artist enjoyed more opportunity as a portraitist of Washington than John Trumbull, a life-long friend and companion. Trumbull had returned to America in November, 1789, after studying on the continent with Benjamin West. Washington made the following entry in his diary on Wednesday, February 10, 1790 "Sat from 9 till 10 o'clock for Mr. Trumbull to draw my picture in his historical pieces." This was the equestrian portrait for the battle pieces of Trenton and Princeton. Five other sittings were given up to March 1, when Washington wrote "Exercised on horseback this afternoon, attended by Mr. John Trumbull who wanted to see me mounted." The final sitting occurred on the 4th of March. In 1791 Trumbull executed for the city of New York, a full length painting of the General standing erect and dressed in uniform. Tuckerman remarked ²¹ "This work was executed before the loss of his teeth changed the expression of Washington's mouth." This, however, was not correct, for two years before all but one of his teeth were missing.

Through the year 1792, Trumbull visited Washington in Philadelphia and again painted a portrait which represents him on the eve of the battle of Princeton (H). This one is considered one of the best of his works, and though C. W. Peale went so far as to say that "Trumbull's Washington is a fable,"²² it possesses many of the characteristics of Houdon's bust. It shows an expression and a depth about the eye not seen by the other artists. It records the same facial expression, the high cheekbone, upturned eyebrow, the same type of nose, and has all the characteristics of the left side, with the curved mouth.

The Williams' "Masonic" painting of Washington is typical of a face lacking teeth (I) (Fig 136). It has however more of the mask facial outlines than any of the others and represents the right side of Washington's face. The mouth, although the corners droop, and the type of nose and eyes resemble in cast and features the famous Houdon's mask. It is entirely different from any other portrait of the President, for it brings out several details faintly shown in others, the smallpox scars on the nose and cheek, the black mole under the right ear and the disfiguring scar on the left cheek, as a result of an ulcerated tooth, already shown in Peale's painting and recorded in Fig 114 of the previous chapter. It was painted in Philadelphia by William Williams in 1793. It was ordered, received and accepted by the group of men who had known Washington intimately. "They were satisfied that they had preserved for posterity a true, unidealized likeness of their friend, patron and companion, as the artist followed instructions literally 'Paint him as he is'."²³ The heavy lines brought about by age and the faulty fit of false teeth incompletely eliminated by Stuart by stuffing cotton between the lips and cheek, are faithfully reproduced in the painting. The portrait is not a flattering likeness, compared to the general conception of the First President, but it undoubtedly is a true portrait, for it is hardly possible that Washington's Masonic friends would have accepted that which was not a faithful transcript of his features as he then appeared.

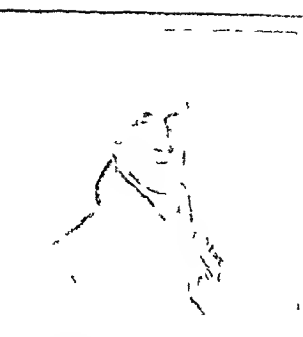
The Wertmuller (1795) (J) and Rembrandt Peale's (1795) (K) interpretations are somewhat alike. While the general facial outline follows the lines of the right side of Washington's face, the narrow, long, pointed nose, eyes less widely separated, and more shallow drooping mouth and narrow face are characteristic however of the left side. Some of Wertmuller's features have strong points of resemblance with those found in Trumbull's portraits. G. W. P. Custis almost ignores this painting and, questioning if it was painted in 1795, asks "where is the distinguishing feature in the physiognomy of the Chief of that period—the projection of the under lip?"²⁴

In September 1795, three sittings, from 7 till 10 in the morning, were accorded to several members of the Peale family, each of whom finished a portrait of the President. Rembrandt Peale's has already been consid-

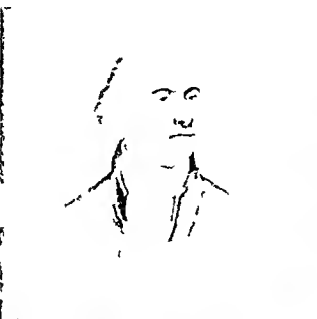
I



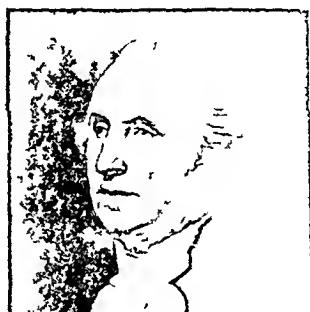
J



K



L



M



N



O



P



Fig 136 — Washington as he appeared to his artists. I In 1794, age 62, by William Williams, Alexandria Washington Lodge, Alexandria, Va. J In 1794, age 62, by A. W. Wertmüller. K In 1795, age 63, Rembrandt Peale. L In 1795, age 63, by Charles Willson Peale, New York Historical Society. M Vaughan Portrait. In 1795, age 63, Gilbert Stuart, Metropolitan Museum of Art. N In 1796, age 64, Gilbert Stuart, Boston Athenaeum, Museum of Fine Art, Boston. O In 1796, age 64, James Sharpless. P In 1798, age 66, by Charles de St. Mémis. (Photographs furnished through the courtesy of Hon. Sol Bloom, Chairman Washington Bicentennial Celebration.)

ered The portrait by Charles Willson Peale (L), painted at the same time as that by his brother, seems to resemble more the face on the right side, except in the region of the mouth which is altogether too full What is the secret of success in this painting of C W Peale's Washington? Charles Willson Peale observed that the mouth was abnormally shaped on account of the ill-fitting dentures, and he set to work, carved and cast in metal a full set and sculptured the dentures in order to give a perfect and repose condition of the mouth and the facial muscles This denture we have previously described (Fig 120) Washington's compeers, relatives and friends have considered the portrait paintings by Charles W Peale as the nearest resemblance to the true outlines of the face of Washington Knowing and having painted Washington in his youth, he was able to succeed where others had failed Both lips however were carried much further forward than in the life mask, on account of the heavy dentures The scar on the left cheek is seen very clearly In many respects both this and the Williams' painting are quite similar

There is a marked difference in the two Stuart paintings (M and N) now in the *Metropolitan Museum of Art* and the *Athenaeum* portrait of 1796, *Museum of Fine Arts*, Boston Gilbert Stuart has generally been considered the most famous of the artists who painted Washington and, while his portraits have great merit as works of art, they do not correspond with the life mask The first one was painted in September, 1795, just after the occasion on which Stuart discovered the Peales at work He produced, as one writer says ²⁵ "a face on which the lines of character are softened, the energy of expression mellowed, a face chastened by responsibilities, infinitely sweet and with a tender melancholy of exalted seriousness It is the face of the one who has conquered himself as well as others and it represents him as indeed 'the Father of his People' "

The first of the three paintings from life was the *Vaughan type* (M), after that came the full-length portrait known as the *Lord Lansdowne* The third, at the request of Mrs Washington, is the familiar *Athenaeum* (N) It is estimated that Stuart did from eighty to one-hundred likenesses of Washington from these The latter portrait stands first in popularity It is known that Stuart did not like his first portrait of Washington and when he painted his second and third from life, he chose the opposite side of the face, the left, refining the lines and much idealizing Washington's countenance The pictures by Stuart also give a drawn or stiff appearance to the mouth

Elaborate criticisms upon the portraits of Stuart frequently greet our eyes, yet in one point of censure, the mouth, there appears to be a universality of opinion Tuckerman says ²⁶ "The usual objection to Stuart's Washington is a certain feebleness about the lines of the mouth, which does not correspond with the distinct outlines of the frontal region,

the benign yet resolved eye, and the harmonious dignity of the entire head, but this defect was an inevitable result of the loss of teeth, and their imperfect substitution of a false set. Rembrandt Peale, in a letter dated March 27 1859, to Dr Isaac J. Greenwood, wrote ²⁷ "Washington sat to me in the autumn of 1795—and at the same time sat to Stuart, having then in his mouth the Teeth made by your Grandfather in 1790—not satisfied with this Portrait Stuart painted another Portrait in the spring of 96, when the General had in his mouth an Ivory sett made by James Gaidette which caused his mouth to be changed."

Isaac J (ohn) Greenwood recorded the following remarks as published in the *Philadelphia Bulletin* during the year 1850 ²⁸ "In Stuart's portrait the mouth is remarkably firm, tightly closed, and altogether peculiar. It has often been referred to as singularly characteristic of Washington's non resolution. Yet the truth is it obtains this expression from a badly fitting set of teeth. A close observer can see on scrutinizing the portrait that the mouth looks swelled above the lips, so that the picture itself, in the eyes of a competent critic, corroborates the tradition."

Tuckerman again speaking of Stuart's second or Lansdowne's portrait, comments ²⁹ "The features usually exaggerated in poor copies, and the least agreeable in the original, is the mouth, resulting from the want of support of those muscles, consequent on the loss of teeth, a defect which Stuart vainly attempted to remedy by inserting cotton between the jaw and the lips, and Willson Peale more permanently, but not less ineffectually, sought to relieve by a set of artificial teeth."

Stuart often complained of Washington's impatience at posing for his portraits, and there is evidence that Washington was not fond of Stuart. At the earnest solicitation of Mrs. Bingham, Stuart was reluctantly granted another sitting on the 10th of April, 1796, resulting in the "Lansdowne" portrait. Again on condition that when finished, the portrait should come into the possession of Mrs. Washington, a third sitting was accorded, but Stuart was so well pleased with his painting that he never completed it, and thus retained it for his own use. It still remains in its unfinished state in the *Boston Museum of Fine Art*, though the property of the *Boston Athenaeum*.

In this painting, the face is shortened, also the nose, though the bridge of the nose has been widened. In both the facial dimensions, the distance from nose to chin is too short, and that of the lips to the chin too great. In the last painting the mouth and the eyes resemble more those found in the composite picture on the left. The roundness of the face also approaches this type of face. In nearly every respect it is that of the left side of the life mask.

The last portrait of Washington was a crayon profile by James Sharpless, made at Philadelphia, in 1796, (O) and is without doubt a

correct and faithful profile of Washington, very closely resembling the profile view of Houdon's life mask, made in 1785, as well as that of his busts

Loosing remarked ³⁰ "For the exquisite likeness and uncommon truthfulness of expression, this has been much admired by members of the Washington family who remembered the original "

It seems that Washington must have realized the alterations which were taking place, as this was the last sitting he gave to any artist, though Charles de St. Memin, in 1798, produced the portrait in the lower right hand corner (P)

Apparently the trouble with most of Washington's artists was the fact that they failed to recognize the lack of proper facial dimensions due to the loss of teeth. They overlooked the fact that the distance from the nose to the chin was too short, on account of a shortening of the distance from the nose to the lip. And they lost the contour of the lower lip. By protruding the lower jaw, this was overemphasized. In studying the composite pictures, one will find that the faces are exactly the same length and that both have the same distance from the nose to the lips, and from the lips to the chin, the two faces appear entirely different.

Not only did the loss of teeth affect Washington's face, but Maclay, in 1798, of one of the President's dinners, remarked ³¹ "He seemed in more good humor than I ever saw him, though he was so deaf that I believe he heard little of the conversation." This defect Washington also called to the attention of Lafayette, saying that he was "sensible too, to a decay of hearing." The loss of Washington's teeth aggravated the condition for the condyle of the mandible shifting on the auditory meatus, and produced added irritation and pressure.

The comparison study outlined above would indicate that with the exception of the Williams' Masonic painting, they all apparently lacked something that Houdon's life mask so vividly retained, and that most of the portraits of Washington are idealistic and stress certain characteristics which appealed to the artist. The particular style of each may be traced in his various efforts, and all clearly show that they saw but one half of Washington's face, either the left or the right, and so painted him.

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EPILOGUE

The end of my story has now been reached, comprising a period of dental history which, until now, has remained somewhat mysterious or unknown. The foregoing does not pretend to be a complete account of the early development of the profession and its advent in America, but it does cover the more notable achievements and serves to illustrate the difficulties which have attended the writing of the early background of dentistry, especially that in America, difficulties chiefly due to the lack of accessible material. History continues to march unceasingly and the stage is now set for those scenes which later raised American dentistry to the esteemed position it has attained and gave it world-wide recognition.

American dentistry as an organized profession had its birth during the six-year period from the formation of its first dental society in 1834, *The Society of Surgeon Dentists of the City and State of New York*, to that of the first national society in 1840, *The American Society of Dental Surgeons*. Not until 1846 did the first national medical convention assemble. During this interval there was conceived and brought to fruition the first dental journal, *The American Journal of Dental Science*, June 1839, and the first dental college, *The Baltimore College of Dental Surgery*, 1840. As years went by, new and important discoveries occurred, and wider and ever wider strata of the population received better dental care.

Now that we have had an opportunity to thoroughly appreciate the study of this colonial period of our history, we cannot help but arrive at the conclusion that the majority of men then practicing were honest of purpose, sincere and capable exponents of our profession.

It is true that they possessed but little or no knowledge concerning those sciences which today are so important for any person dealing with living tissues or human organs, but that this period did not fail to bring forth fundamental changes and that the practitioners were merely *charlatans* has not been borne out or substantiated.

A close study will show what sort of men nurtured dentistry and supported it to maturity. It will demonstrate that dentistry was well founded by professional men and not entirely by artisans, and that all through these years, the dark ages of dentistry, there have been men with a just appreciation of the qualifications and needs of a profession. We are proud to believe that these pioneers understood and constantly and conscientiously regarded those laws upon the observance of which experience taught them success depended. Individual dentists, eminent men, studied, searched, settled, each for himself, certain laws governing dental operations in their hands. Each, to an extent, codified them in

his mind as he proved their worth in his own practice and they became the principles of dental practice

The pioneer dentists in our own land, for the most part, entered practical life while the mind was still active and alert. Untrammelled by the dogmas of trained teachers or the rigid exactions of time-honored theories, they developed a self-reliance, a readiness to adapt to their present use available means and an alertness for better methods and their application, with the necessary skill, to which their brothers in Europe were strangers. Many, it is true, were mechanics, trained in the machine shop or at the blacksmith's forge, the carpenter's or the jeweler's bench. To them and to their influence the dental profession the world over owes much that has made the fine arts of dentistry a possibility.

Nowhere else in the world have practical mechanics become so practical. The immediate outgrowth was first, a necessity of accomplishing much with meager resources, second, a field untrammelled by conventionalities and unhampered by time-honored usage.

Although America in its colonial period first learned its dentistry in Europe, in time the student-nation began to read lessons which the older eye failed to perceive. In this young story there are bold deeds, and it was not many years thereafter when American dentistry began to lead the way. To some of my readers it will come as a surprise to find how many of the so-called basic fundamentals of dentistry had their origin during this period. History makes us humble indeed, for in spite of our exalted opinion of modern dentistry, we must come to the realization that during the years considered, there was much that we might have utilized, to our great advantage.

In citing a few of the important items as found throughout the period covered, my meaning will be made somewhat clearer. Let us begin with the problem of oral hygiene, for was it not for the purpose of educating the public at large along the principles of oral hygiene that our literature first came into existence, in the writings of Skinner and Longbotham and one finds that during the later decades of the eighteenth century the recent slogan that *a clean tooth does not decay* had its origin in the records of the Greenwoods? The clinical picture of pyorrhea alveolaris and its treatment by Fauchard in 1746 is certainly a remarkable presentation of the subject. How much have we added to this? The construction of the early artificial bridgework, with the ancient's concept of the necessity of keeping the gum margins free, and the use of pivot teeth were the contributions of our first artisans even before the days of the present era. In America, late in the eighteenth century, human and animal teeth, either fixed by pivots in remaining roots or fastened to adjoining teeth by wires, bands, or ligatures, or set on base plates carved from ivory, gave way to the gold clasp and gold swaged plate, the latter

retained in the mouth by atmospheric pressure. Mineral teeth were then being experimented with and used in this country. The cast-gold inlay had been used successfully early in the century by our Pre-Columbian neighbors, and again forgotten until 1906. Filling materials for repairing and arresting the ravages of dental caries, such as silver, lead or tin were beginning to be displaced by gold, beaten from coins. The dental foot engine had made its appearance in 1790 and was forgotten until 1870.

While Fauchard was the first to state that there were no *worms in the teeth*, an idea prevalent at that time, Greenwood considered that caries might result from two causes, either acidity or by microorganisms, the latter he termed *annacula*, thus anticipating Miller by many years. As for the dental pulp and its treatment, attempts to alleviate the pain were being made with oil of cloves, cinnamon and turpentine, or a bolus of opium, while the exposed nerve was being destroyed by cauterization. We thus find the pulp destroyed, removed from its cavity and canal, and after antiseptic treatment, long before the days of Lister, the pulp canal, pulp cavity and cavity of decay being filled with such material as gold, the placing of cotton in the root canal apparently belonged to a later period. Replantation and transplantation of teeth were the order of the day, and dental treatment for an involved antrum was likewise practiced. Taking care of the teeth of the young child upon a yearly fee was then the practice. The care and preservation of the deciduous teeth and the importance of their retention until replaced by the permanent successor was well understood, and the use of an expansion arch to correct irregularities and its basic principle were well known. Dental literature in this country was just beginning to be published, and finally there was established in infirmaries and hospitals the dental clinic.

One could continue, but sufficient evidence, we believe, has been presented upon which our conclusions are based as to the freedom of inquiry which characterized the best men of that time and to their liberality in giving freely the fruits of their labors to other seekers after light.

In enumerating these basic fundamentals, there is no desire to convey the idea that all of these principles were then the general practice, most likely they were not. The important point is that all of them, and many others, were known and practiced by some, and if they were not followed by all, it was because as in all ages, men did not utilize the knowledge at their disposal.

After reading this, one must admit that it certainly was not entirely an age of "*quackery*." What actually took place from 1800 to 1835 must be left for another time, suffice to say that it was within that period that dentistry found itself gradually slipping into the hands of the

unscrupulous, so that men were compelled to organize in order that the progress of dentistry might continue unhampered

Many years of study have given me the opportunity to become familiar with the history of our profession, its literature, and the lives of the foremost men of the time. This has now become a part of me, and it is this knowledge that we now desire to impart to others. The reader must decide how far we have succeeded. It is with regret that we bid farewell to this important period, to those with whom we have been living for several decades. My hope is that it will be convincing enough that from our history we have much to learn.

"To the making of books there is no end." Notwithstanding this impatient remark of the skeptic, the making of new books is not without its defense. Books are an important link, not only in the history, but also in the progress of a science. They are the monuments left by bygone ages. In them the past is made to live again, and the experiences of all the centuries are refined and crystallized for our own benefit and enjoyment. We need these records of thought and achievement to build our own lives better. The highest aspirations and achievements of the profession, committed to literature, have survived and have been transmitted to us. Without the agency of the printed word, they would have perished with succeeding generations. Books preserve the spirit of the past and should educate the present generation by acquainting it with the accumulated treasures of our ancestors. Each generation has the task of reshaping and reinterpreting the history and institutions of the past for the understanding of the present. It will be interesting in this connection to bear in mind that many of our modern practices represent a change only in methods and not in the basic principles. The difference is that today with our added knowledge, we are better able to cope with the problems that confront us.

In the solution of the perplexing problems which today confront the profession, the experience of the past must be our best, if not our only guide. To draw conclusions from false premises, then, must of necessity lead to false steps, steps which may well prove fatal.

"History is to the world what memory is to the individual."

The profession which is ignorant of or misinterprets its past experiences, has lost perhaps its most valuable asset, has missed its best guide to the future, and will almost certainly continue to repeat the same mistakes indefinitely. Neglect of science by one generation bars the doors of progress, and the next generation suffers accordingly.

"If we tried to sink the past beneath our feet, be sure the future would not stand."

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APPENDIX A

The list of newspapers examined during the course of ten years, were those found in the libraries of the American Antiquarian Society in Worcester, Mass., New York Historical Society, New York Public Library, New York Society Library, Library of Congress, Massachusetts Historical Society, Historical Society of Pennsylvania, Maryland Historical Society and the Peabody Institute of Baltimore

Maryland

Maryland Gazette (Annapolis) 1778-1779 1783-1791

Maryland Journal 1773-1795 Name changed to *Maryland Journal & Baltimore Advertiser* Oct 26, 1795

Baltimore Telegraphe 1795-1800

Massachusetts

Boston Chronicle 1767-1770

Boston Evening Post 1735-1775

Boston Evening Post 1778-1780

Boston Evening Post and General Advertiser 1781-1784

Boston Gazette 1753-1798 In Jan 1753 title changed to *Boston Gazette or Weekly Advertiser* April, 1755 *Boston Gazette or Country Journal*

Boston Post Boy 1734-1775

Columbian Centinel 1790-1800 A continuation of the *Massachusetts Centinel* on June 16, 1790

Independent Chronicle 1776-1800 A continuation of the *New England Chronicle* Nov 1776 changed title to *Independent Chronicle* and the *Universal Advertiser*

Massachusetts Centinel 1784-1790 On June 12, 1790 title changed to *Columbian Centinel*

Massachusetts Gazette and Boston News Letter 1768-1769

Massachusetts Gazette 1785-1788

Massachusetts Mercury 1793-1800

Massachusetts Spy 1770-1775

Federal Orrey 1794-1796

New York

New-York Chronicle 1769-Jan 4, 1770

[*New-York*] *Columbian Gazetteer*, 1793-1794

[*New-York*] *Commercial Advertiser* 1797-1800

- [*New-York*] *Constitutional Gazette* Aug 1775-Aug 1776
 [*New-York*] *Daily Advertiser* 1785-1800
New-York Daily Gazette 1785-1795, succeeded *New-York Independent Journal*
 [*New-York*] *Diary* 1792-1798
New-York Gazette or Weekly Post Boy (Holts) 1747-1773
New-York Gazette and Weekly Mercury (Gaines) 1768-1783 A continuation of *New-York Mercury*
 [*New-York*] *Independent Gazette* 1783-1784 Continued as *New-York Journal*
New-York Journal or General Advertiser 1766-1776 A continuation of the *New-York Gazette or the Weekly Post Boy*
New-York Journal (Greenleafs) 1794-1800, a continuation of the *New-York Journal & Patriotic Register*
New-York Independent Journal or General Advertiser 1784-1793 A continuation of "*The Independent Gazette* In 1785 known at the *New-York Journal & General Advertiser*" In May 1790 became *New-York Journal & Patriotic Register* Continued as Greenleaf's *New-York Journal* 1793
New-York Weekly Museum 1788-1800
New-York Packet 1783-1792
New-York Weekly (Independent) Journal 1733-1751
 [*Rivington's New-York*] *Royal Gazette* 1777-1783, a continuation of *Rivington's New-York Loyal Gazette* In 1783 became *Rivington's New-York Gazette, or Universal Advertiser*

Pennsylvania

- Pennsylvania Chronicle and Universal Advertiser* 1767-1774
 [*Pennsylvania*] *Federal Gazette* 1788-1793
Pennsylvania Gazette 1766-1800
Pennsylvania Journal or Weekly Advertiser 1766-1793
Philadelphia Aurora 1794-1800
Philadelphia Packet 1771-1790
 [*Philadelphia*] *Freeman's Journal* 1781-1792
 [*Philadelphia*] *Gazette of the United States* 1790-1800
Independent Gazetter 1785
Staatsbote 1794-1800

Providence Gazette & Country Journal 1780-1790
Hartford Courant 1800
Hudson Gazette 1795
Norfolk Gazette or Herald 1796
South Carolina Gazette 1796
Virginia Argus 1800
Virginia Journal 1785-1787
Virginia Gazette 1772-1799 A few numbers here and there

APPENDIX B

LETTERS RELATING TO WASHINGTON AND HIS DENTIST*

Fig			
1	1781 — Mar 29 —	New Windsor Washington to John Baker (Wm L Clements Library, Ann Arbor, Mich)	Have
2a	1781 — Sept	— Le Mayeur to Barnard Turner, requesting application for Passport to America	Have
2b	1781 — Sept 10 —	Jean Pierre Le Mayeur to Barnard Turner, Public Record Office State papers Domestic London V 22 Stevens Catalog Index	Have
3	1783 — May 15 —	Washington's Inquiry to Lt Col William S Smith regarding a dentist (Le Mayeur) (Library of Congress)	Have
4	1783 — May 20 —	William S Smith's reply to Washington (Original draft in Stephenson Collection N Y Public Library) The letter sent, now in Library of Congress	Have
5	1783 — June 12 —	Washington to William S Smith	Want
6	1783 — June 17 —	William S Smith to Washington	Want
7	1783 — June 17 —	George Washington to Maj Billings of Poughkeepsie (Memoirs of John Greenwood)	Have
8	1783 — June 20 —	Washington to William S Smith	Have
9	1783 — July 1 —	Letter of Le Mayeur to Washington (Library of Congress)	Have
10	1783 — July 16 —	Washington to Le Mayeur (Library of Congress)	Have
11	1784 — Jan 20 —	Le Mayeur to Washington (Library of Congress)	Have
12	1784 — Feb 22 —	Washington to Richard Varick (Library of Congress)	Have
13	1784 — Mar 31 —	Le Mayeur to Richard Varick (Library of Congress)	Have
14	1784 — Aug 14 —	Le Mayeur to Washington (Library of Congress)	Have
15	1784 — Aug 30 —	Washington to Le Mayeur (Library of Congress) (Lafayette)	Have
16	1785 — Nov 2 —	Le Mayeur to Washington Richmond (Library of Congress)	Have
17	1786 — Mar 28 —	Washington to Le Mayeur	Want

In a letter from J C Fitzpatrick dated January 26, 1931 he states "We have only two of the Washington letters to Dr Greenwood but I would like very much to have photostat copies for incorporating in the WRITINGS" These later were supplied him

18	1786 — Apr	10	— Le Mireux to Washington (Library of Congress)	Have
19	1786 — Aug	28	— Le Mireux to Washington (Library of Congress)	Have
20	1787 — Apr	8	— Le Mireux to Washington (Library of Congress)	Have
21	1787 — May	5	— Washington to Le Mireux	Want
22	1787 — May	23	— Le Mireux to Washington (Library of Congress)	Have
23	1787 — Oct	24	— Le Mireux to Washington (Library of Congress)	Have
24	1791 — Feb	6	— Greenwood to Washington* (no record)	Want
25	1791 — Feb	16	— Philadelphia Washington to Greenwood This letter his brother, Isaac, gave to Joseph Osen Baldwin, then a student in his office who in 1869 gave it to the Philadelphia Dental College Record is in Koelsch's History of Dentistry V3, p 26, 1910 Dr Bromwell, the dean was not able to locate it in 1932	Have
26	1791 — Sept	4	— Washington to Greenwood Refer to J G answer dated Sept 10 Also in Ledger A	Want
27	1791 — Sept	10	— Greenwood's answer (Library of Congress) Referred to in Ledger A	Have
28	1795 — Feb	20	— Philadelphia Washington to Greenwood Was presented July 25, 1842 by Isaac John Greenwood to Charpin A Harris Mrs Harris turned it over to Dr Walter Harris Coffin and it was then given to the London Hospital Medical College in White Chapel	Have
29	1797 — Jan	20	— Philadelphia Washington to John Greenwood This letter was sent by I J Greenwood to C F Maury, dentist in Paris, November 1, 1825 Part of the letter appears in Maury's "Traite complet de l'art du dentiste—" 1828, 1833, pp 386-1841, pp 338-9 Now owned by Edward Titus of Paris (Library of Congress had it photostated)	Have
30	1797 — Jan	23	— Greenwood to Washington	Want
31	1797 — Jan	25	— Philadelphia George Washington to Greenwood Formerly in the possession of the late Mr Joseph Rudd Greenwood, N Y The Library of Congress in 1936 acquired this and others in accordance with the will of John Greenwood	Have
32	1797 — Feb	20	— Statement of John Greenwood in reference to the letter of January 25, which is the answer (Library of Congress)	Have
33	1798 — Mar	6	— Mt Vernon Letter from George Washington to Benjamin Fendall, referring to Mrs Washington (Library of Congress)	Have
34	1798 — Dec	7	— Philadelphia George Washington's letter In possession of the J R Greenwood estate Now in the Library of Congress 1936	Have
35	1798 — Dec	8	— Greenwood to Washington	Want

- 36 1798 — Dec 12 — Philadelphia Washington to Greenwood Given to William Pitt Greenwood of Boston, a brother In 1877 he in turn loaned to "Old South Meeting House" Boston In Geo C Mason's "Life of Gilbert Stuart" it is dated October 12th instead of December 12th Have
- 37 1798 — Dec 28 — Greenwood to Washington This letter came into the possession of Mr William Alexander Smith of New York, 412 Madison Ave , and it was still in his possession on April 19, 1909 It appeared in the Magazine of American History, 1886, V XVI, pp 294-5 Now in the Pennsylvania Historical Society Appears correctly in Thorpe's V 3 Koeh's p 24 & Cigrand's "Rise, Fall & Revival of Dental Prostheses" p 177 Have
- 38 1799 — Jan 6 — Mt Vernon, Va Washington's letter in possession of J R Greenwood Correctly dated in Koeh's History of Dentistry, V 1, p 86, and Cigrand's Rise, Fall & Revival, etc , p 180 Incorrectly dated 1795 in Thorpe's V 3, p 25 Harris' Dictionary 1849, p 334, and Dexter's History, p 11 Now in the Library of Congress Have
- 39 1799 — Jan 11 — J Greenwood's answer to Washington of the 6th Property of Forest H Sweet in 1935 Have
- 40 1799 — Aug 10 — Benjamin Fendall's answer to Washington's letter, March 6th Library of Congress Have
- 41 1806 — Aug 25 — Affidavit of Notary regarding Washington's Tooth, (J R Greenwood's estate) Now in the Library of Congress, 1936 Have

APPENDIX C

RELATING TO THE DISPOSITION OF THE WASHINGTON- GREENWOOD LETTERS AND DENTURES

"The three letters, which I have given in full are the only ones remaining of the Washington correspondence, in the hands of Dr I J Greenwood. The first and second are written upon paper, the water mark of which contains the name and crest of Washington, and a crude figure of Liberty seated, on a plough, a correct representation of which occurs in Lossing's 'Mount Vernon' (p 348). How many in number the Washington Letters were originally I cannot state, Dr I J Greenwood, when they came into his possession at the death of his father, enclosed them in a wrapper which is still preserved and upon which he wrote, 'Letters from Gen George Washington to John Greenwood, Dentist, from 1791 to 1798 Anno Domini,' embracing thus a period of eight years,—beneath the above was subsequently written, 'No'. Some of these letters, were given away at the time by me that South America was revolutionized to individuals going there

Isaac J Greenwood "

"May 23, 1838

71 Warren (St)

"Thus we find that most of the letters were disposed of about the year 1821, no memoranda, however were ever taken as regards them. In 1825 one of the remaining letters, as we have before particularly mentioned was, sent out to M F Maury at Paris (See p 23)

"Oct 5, 1840 Dr David K Hitchcock of Boston (98 Court St) sent on to Dr I J Greenwood, requesting a drawing of the Washington Tooth and an account of its extraction, to be introduced in his lectures on teeth, which he at times delivered at the various Lyceums, in truth a rather strange demand as the tooth differs not from any other human tooth, and moreover was never, I suppose, extracted, but gradually loosened and forced out, as has been already stated, in his reply of Oct 6th Dr Greenwood observes "Among the letters from G W to my father I find a small parcel endorsed (in the hand-writing of my father) thus—"Teeth that have been fixed in the head of General George Washington by John Greenwood, Dentist, you will find that they remained in so long that they are nearly destroyed' I have but two remaining and I send you one, it is a Bicuspid, and the moisture being absorbed, it has split'. One of these had already been sent to Maury of Paris in 1825. Among the private memoranda of Dr I J Greenwood I find the following, under date of July 25, 1842 —"Gave Professor Chapin A Harris a letter from General Washington, one of three remaining (i.e. exclusive of the one framed) that I have from those written by my father, and the only remaining tooth (also split) which was one that had been inserted in the head of Gen Washington (as by a memorandum accompanying the same in hand writing of my father John Greenwood) and an Old Advertisement of my father relative to this profession "

From Isaac John Greenwood's Manuscript entitled

"The Portraits of Washington" 1862

ISAAC J GREENWOOD
171 West End Ave
Formerly 216 W 14th St

New York, October 15th, 1890

Dr R B Winder, [1828-1894]
Dean of the Balto Coll of Dental Surgery,

Dear Sir

Several times in the course of years, I have received communications from gentlemen in the profession, seeking information as to Dr Greenwood, Washington's Dental Surgeon. Some of these have made allusion to a set of artificial teeth, now in the museum of your college, said to have been used by the First President. I am aware that my late father, some time previous to 1840, presented to Dr Chapin A Harris, a portion of the upper half of a set, and I have always understood that Dr Harris gave it to the College.

But will you be kind enough to inform me if it is a fact that you have also a full Washington set, and can you let me know what proof you have of its authenticity?

Any information on the subject will greatly oblige

Yours very truly,
(signed) Isaac J Greenwood

(In Balto College of Dental Surgery) *Confidential*

BALTIMORE COLLEGE OF DENTAL SURGERY
Prof R B Winder, M D, D D S, DEAN
No 716 Park Avenue

Baltimore, Oct 15th, 1890

Isaac J Greenwood, Esq

Dear Sir

We have an oil painting in the College of Dr Greenwood, and we likewise have an upper and lower set of teeth said to have been worn by Washington, and I have never before known that there was or could be any doubt as to their authenticity. They were presented to this school a long time ago by Dr John Allen, 716 Fifth Avenue, of your city. No doubt he can give you full information in regard to them. The set or half set presented to Dr Chapin A Harris by your father I have never seen, although I have been informed that Dr Blandey [Alfred A Blandy] of London, who married a daughter of Dr Harris had such a set which belongs also to this college, having been presented by Dr H.

In 1861, as I learn, at the Commencement of the late Civil War, the school was very nearly suspended and fearing that a raid might be made on the College by the soldiers, these two sets were taken out of the College museum and placed for better and safer keeping in the hands of two of the Professors—Dr Blandey had the safe keeping of one set and took it off to Europe with him and has never returned it. I should be glad to learn of any investigation you may make in regard to either set.

(signed by Winder)

In the Balt College—*Confidential*

(COPY)

11 West 39th St
New York, Nov 3d, 1890

Mr R B Winder

My dear Friend

With reference to the "Washington teeth" I have delayed writing to you this long, hoping to be able to find the copy of a certain letter which was in my possession, written by Genl Washington to his dentist, Dr Greenwood. But in the confusion attending two moves since last spring, it has been mislaid. A copy of it however was published in one of the Dental Journals in the summer or fall of 1876, it being incorporated (if memory serves right) in a report of a visit to the Centennial Exposition of that year. Unfortunately I cannot recall which of the Journals it was, but think it was either the *Cosmos* or *Dental Register*.

The set of teeth now in your possession I obtained from a grandson of Dr Greenwood.

Much interesting matter in this connection may be found in *The Magazine of American History* Vol II in an article entitled "*Remarks on the Portraiture of Washington*"

Also Vol XVI page 294 and Vol XXII page 438

Very truly yours,
(signed) John Allen

(In Balto College—Confidential)

(COPY)

10, Cranbourne Court, S W
Jan 27th/08

Dear Mr Walter Coffin,

The autograph letter from General George Washington to his dentist, accompanied by a fragment of an old carved ivory lower plate, which you had from me many years ago, came into the possession of my late father Dr Chapin A Harris of Baltimore through Dr Greenfield.

Yours sincerely,
(signed) Helen P Harris

(In the *London Hospital Medical College*—Refers to the letter from Washington to John Greenwood dated Feb 20, 1795, and the fragment of an upper or lower denture which Isaac J Greenwood, Junior says was made by John Greenwood for Washington in 1789)

msc saig 1791

(COPY)

(no date in my copy)
19, Hanover Square,
London, W

The autograph letter of General George Washington to his dentist, framed in together with a fragment of a carved ivory lower denture enclosed in a special receptacle covered by a hinged moulding of the said frame, which denture was made for George Washington—were acquired by me some twenty years ago from Miss Helen Harris, daughter and legatee of the late Chapin Harris, of

Baltimore, Maryland, U S A , as having been in her custody since given to her father by Dr Greenfield, the Dentist the said autograph letter is addressed to

Having been acquired of me by Mr George Northcroft, this is to testify to my best knowledge and belief, and as commonly recognised in the United States, that the said letter and relic, were, as stated in the appended letter from Miss Helen Harris, acknowledged by Dr Chapin Harris as genuine relics handed down as described

(signed) Walter Harris Coffin

(In the London Hospital Medical College)

APPENDIX D

Received New York, May 5, 1876, from the hands of Isaac J Greenwood of No 216 West 11th St, in the City of New York, the following enumerated articles, preserved as heir-looms in his family as being connected with the life and history of Genl George Washington. These articles are received by me in trust, to be placed in my case of dental-work, etc, which will be displayed in the Grand Centennial Exhibition, which will be opened at Philadelphia on May 10, 1876, and the said articles are to be returned to Isaac J Greenwood, his heirs, executors or assigns by me or my representatives at the close of the said Exhibition

First —The lower jaw-piece of the first set of teeth made for Washington, in 1789, by Dr John Greenwood of New York, showing the hole through which passed the last natural tooth which grew in his head

Second —The fob-chain of Dr John Greenwood, with watch seal, watch-key and Lafayette-button attached, and also the last natural tooth which grew in Washington's head, the latter enclosed in a gold case, with glass on either side

Third —A frame of Washington's letters, as it hung in Dr John Greenwood's office, till the period of his decease in 1819, containing a letter to him from Gen Washington, dated "Mount Vernon 6th Jany, 1799," also the closing paragraph of another letter from Washington to Dr Jno Greenwood, the remainder of which is in possession of Isaac J Greenwood, also small head of Washington in bas-relief on paper from the Duvivier-medal

Fourth —Professional-card of Dr John Greenwood, engraved by P R Maverick, with the head of Dr G after a crayon drawing done in Paris, 1806, by Roy, who also engraved the same

(signed) John Allen

The above articles remained on exhibition in Dr Allen's case during the whole time that the Centennial Buildings were open, and were safely returned in November, 1876. In the case was another set, mounted with spiral springs the gum work of which was much thinner and well worn, and which was said to have belonged to Genl Washington. There was also the set made for Col Aaron Burr in France, the gum-work being of block tin, it is held by Dr——Tensin New York, Dec 16, 1876

(signed) Isaac J Greenwood

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